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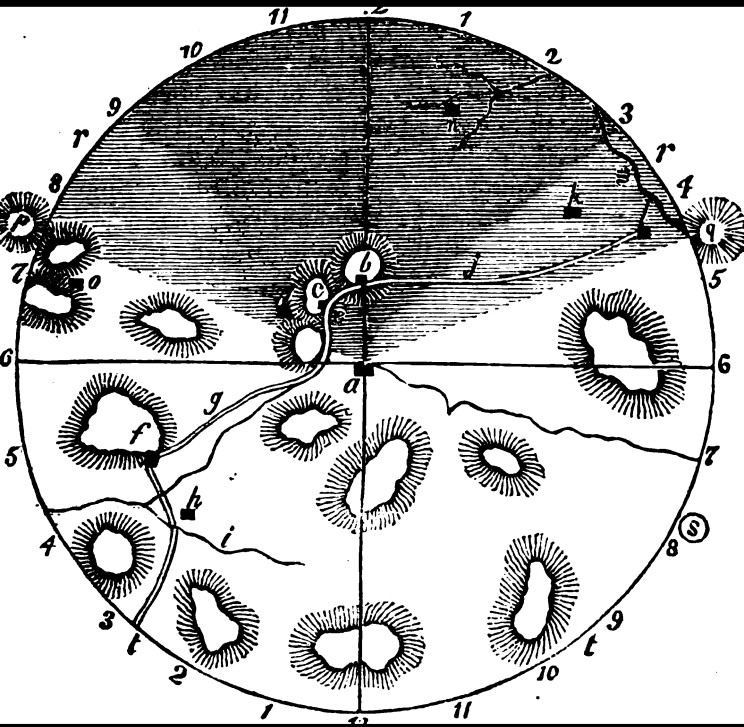

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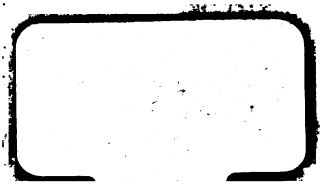

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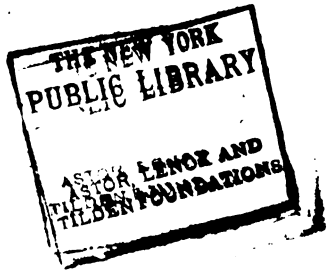

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MOUNTAIN TRAVELLING IN SOUTH AMERICA.

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THE

MONTHLY REPOSITORY

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ENTERTAINING KNOWLEDGE.

VOL. III.

KNOWLEDGE IS POWER—IS WEALTH—IS HONOR.

New-York:

PUBLISHED BY FRANCIS S. WIGGINS, 15 ANN STREET.

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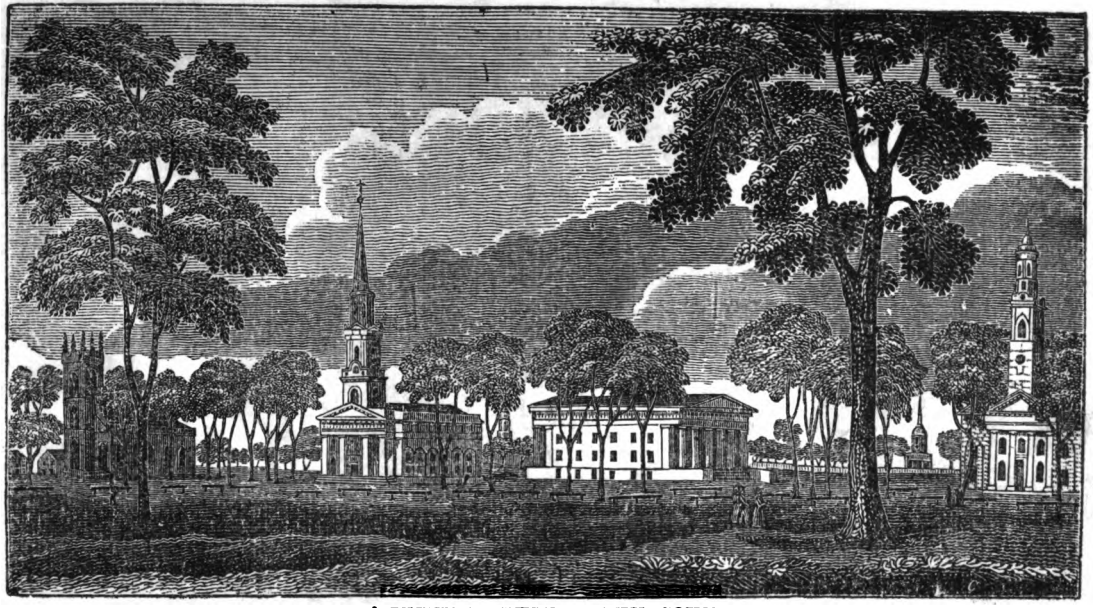

A VIEW OF NEW-HAVEN, CONN.

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THE

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Entertaining Knowledge.

VOL. III. JUNE, 1832. No. 1.

NEW-HAVEN, CONN.

The city of New-Haven, a seaport and semi-metropolis of Connecticut, is thirty-five miles south west of Hartford, seventy-six north west from New-York, one hundred and thirty-four from Boston, and three hundred and four from Washington.

The city lies round the head of a bay that sets up about four miles north of Long Island sound, and is situated on a large and beautiful plain, which is bordered on the north partly by eminences called *East* and *West Rock*, presenting bold and almost perpendicular columns of naked trap rock, 350 to 370 feet high. Two small rivers bound the city, one on the east and the other on the west. It was incorporated as a city in 1784; three miles long from east to west, and two miles wide. It is regularly laid out, and consists of two parts, old and new towns. The old town was laid out in a large square, and is divided into several smaller squares. The central square is intersected by a beautiful street, overspread by elms. On this street are erected three handsome churches. Near the centre of the west section of this square is a new state-house, built after the model of the Parthenon. It has a commanding appearance; and its proportions, and the style of its workmanship, rank it with the best American buildings. The city contains three handsome churches for Congregationalists, and one for Methodist Episcopalians; two beautiful Gothic edifices, of stone, for Episcopalians; one for Baptists, and one for Africans. There are also a jail, an almshouse, a custom-house, a museum, two banks, two in-

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surance-offices, an institution for popular lectures, opened during the year 1831, and six printing-offices, from which are issued five weekly newspapers, and three other periodicals. The houses of New-Haven are mostly of wood, not expensive, but handsome and convenient; and the city is one of the most pleasant in the U. States. The public square and principal streets are finely ornamented with trees; and a great part of the houses have gardens filled with fruit-trees, which give to the city a rural and delightful appearance. The harbor is well defended from winds, but is shallow, and gradually filling up with mud; it has about seven feet on the bar at low water. The maritime commerce of New-Haven is greater than that of any other town in Connecticut. Both the foreign and the coasting trade are considerable, and packets and steamboats ply regularly between this city and New-York. The Indian name of New-Haven was *Quinipiack*. It was first settled by the English in 1638. It was the capital of the colony of New-Haven, which continued distinct from the colony of Connecticut till 1665. The legislature of the state meets alternately here and at Hartford. Yale college, one of the most distinguished literary institutions in America, is established at New-Haven, it was incorporated in 1701; was originally placed at Killingworth: in 1707, removed to Saybrook; in 1717, to New-Haven. There are ten college buildings; four halls, 100 feet by 40, and four stories high, containing thirty-two rooms each for students; a new and convenient chapel, one story of which is appropriated to the theological school, and another to the college library; two other buildings, containing rooms for recitations, lectures and libraries; a dining-hall, of stone, with an elegant apartment above for the mineralogical cabinet and lectures, a chymical laboratory; and medical college, a large edifice, of stone. The college library contains 9500 volumes, and the students' libraries 9000. The philosophical and chymical apparatus are very good. The cabinet of minerals is the most valuable in the U. States. It contains above 16,000 specimens. The number of instructers in the academical department of Yale college is twenty; the number of

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alumni, 4505; the number of students, without including medical, theological and law students, 331. Commencement is held on the third Wednesday in August. There are three vacations, viz. from commencement, six weeks; from the second Wednesday in January, two weeks; and from the first Wednesday in May, four weeks. In 1822, a theological school was established in connexion with this college. The number of students at present is 42; and there are three professors. There is a medical school, the lectures of which begin six weeks after the college commencement. It has six professors and 48 students. There is also a law school, having two professors, and 44 students. These numbers are all given for the year 1831. The city is also celebrated for the number of its boarding schools and smaller seminaries for the young of both sexes. The average number of persons who are here from abroad for the purpose of education is supposed to be rarely below a thousand. *Blue laws* is a name given to the quaint regulations of the early government of New-Haven plantation, when the public authorities kept a sharp watch over the deportment of the good people of the colony, and punished all breaches of good manners and good morals, often with a ludicrous formality.

The population in 1810 amounted to 5772, in 1820 to 7147, and in 1831 to 10,678.

THE PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES;

ILLUSTRATED BY ANECDOTES.

Self-educated men.—Ferguson.—Influence of accident in directing pursuits

Among self-educated men there are few who claim more of our admiration than the celebrated JAMES FERGUSON. If ever any one was literally his own instructer in the very elements of knowledge, it was he. Acquisitions that have scarcely in any other case, and probably never by one so young, been made without the assistance either of books or a living teacher, were the discoveries of his solitary and almost illiterate boyhood. There are few more interesting narratives in any language than the account which Ferguson himself

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has given of his early history. He was born in the year 1710, a few miles from the village of Keith, in Banffshire; his parents, as he tells us, being in the humblest condition of life (for his father was merely a day-laborer,) but religious and honest. It was his father's practice to teach his children himself to read and write, as they successively reached what he deemed the proper age; but James was too impatient to wait till his regular turn came. While his father was teaching one of his elder brothers, James was secretly occupied in listening to what was going on; and, as soon as he was left alone, used to get hold of the book and work hard in endeavoring to master the lesson which he had thus heard gone over. Being ashamed, as he says, to let his father know what he was about, he was wont to apply to an old woman who lived in a neighboring cottage to solve his difficulties. In this way he actually learned to read tolerably well before his father had any suspicion that he knew his letters. His father at last, very much to his surprise, detected him one day reading by himself, and thus found out his secret.

When he was about seven or eight years of age, a simple incident occurred which seems to have given his mind its first bias to what became afterwards its favorite kind of pursuit. The roof of the cottage having partly fallen in, his father, in order to raise it again, applied to it a beam, resting on a prop in the manner of a lever, and was thus enabled, with comparative ease, to produce what seemed to his son quite a stupendous effect. The circumstance set our young philosopher thinking; and, after a while, it struck him that his father in using the beam had applied his strength to its extremity, and this, he immediately concluded, was probably an important circumstance in the matter. He proceeded to verify his notion by experiment; and having made several levers, which he called bars, soon not only found that he was right in his conjecture, as to the importance of applying the moving force at the point most distant from the fulcrum, but discovered the rule or law of the machine, namely, that the effect of any form or weight made to bear upon it is always exactly proportioned to the distance of the point on which it rests

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from the fulcrum. "I then," says he, "thought that it was a great pity that by means of this bar, a weight could be raised but a very little way. On this, I soon imagined that by pulling round a wheel, the weight might be raised to any height, by tying a rope to the weight, and winding the rope round the axle of the wheel; and that the power gained must be just as great as the wheel was broader than the axle was thick; and found it to be exactly so, by hanging one weight to a rope put round the wheel, and another to the rope that coiled round the axle" The child had thus, it will be observed, actually discovered two of the most important elementary truths in mechanics—the lever, and the wheel and axle; he afterwards hit upon others; and, all the while, he had not only possessed neither book nor teacher to assist him, but was without any other tools, than a simple turning lathe of his father's and a little knife wherewith to fashion his blocks and wheels, and the other contrivances he needed for his experiments. After having made his discoveries, however, he next, he tells us, proceeded to write an account of them; thinking his little work, which contained sketches of the different machines drawn with a pen, to be the first treatise ever composed of the sort. When, some time after, a gentleman showed him the whole in a printed book, although he found that he had been anticipated in his inventions, he was much pleased, as he was well entitled to be, on thus perceiving that his unaided genius had already carried him so far into what was acknowledged to be the region of true philosophy.

It is a ludicrous blunder that the French astronomer, Lalande, makes, in speaking of Ferguson, when he designates him, as "*Berger au Roi d' Angleterre en Ecosse;*" the King of England's Shepherd for Scotland. He had no claim to this pompous title; but it is true that he spent some of his early years as a keeper of sheep, though in the employment not of the state, but of a small farmer in the neighborhood of his native place. He was sent to this occupation, he tells us, as being of weak body; and while his flock was feeding around him, he used to busy himself in making models of mills, spinning wheels, &c. during the day, and in

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studying the stars at night, like his predecessors of Chaldæa. When a little older he went into the service of another farmer, a respectable man called James Glashan, whose name well deserves to be remembered After the labors of the day, young Ferguson used to go at night to the fields, with a blanket about him and a lighted candle, and there, laying himself down on his back, pursued for long hours, his observations on the heavenly bodies. "I used to stretch," says he, "a thread with small beads on it, at arms-length, between my eye and the stars; sliding the beads upon it till they hid such and such stars from my eye, in order to take their apparent distances from one another; and then laying the thread down on a paper, I marked the stars thereon by the beads." "My master," he adds, "at first laughed at me; but when I explained my meaning to him, he encouraged me to go on; and, that I might make fair copies in the day time of what I had done in the night, he often worked for me himself. I shall always have a respect for the memory of that man." Having been employed by his master to carry a message to Mr. Gilchrist, the minister of Keith, he took with him the drawings he had been making, and showed them to that gentleman. Mr. Gilchrist upon this put a map into his hands, and having supplied him with compasses, ruler, pens, ink, and paper, desired him to take it home with him, and bring back a copy of it. "For this pleasant employment," says he, "my master gave me more time than I could reasonably expect; and often took the threshing flail out of my hands, and, worked himself, while I sat by him in the barn, busy with my compasses, ruler, and pen." This is a beautiful, we may well say, and even a touching picture—the good man so generously appreciating the worth of knowledge and genius, that, although the master, he voluntarily exchanges situations with his servant, and insists upon doing the work that must be done, himself, in order that the latter may give his more precious talents to their more appropriate vocation. We know not that there is on record an act of homage to science and learning more honorable to the author.

Having finished his map, Ferguson carried it to Mr.

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Gilchrist's, and there he met Mr. Grant of Achoynamey, who offered to take him into his house, and make his butler give him lessons. "I told Squire Grant," says he, "that I should rejoice to be at his house, as soon as the time was expired for which I was engaged with my present master. He very politely offered to put one in my place, but this I declined." When the period in question arrived, accordingly, he went to Mr. Grant's, being now in his twentieth year. Here he found both a good friend and a very extraordinary man, in Cantley the butler, who had first fixed his attention, by a sun-dial which he happened to be engaged in painting on the village schoolhouse, as Ferguson was passing along the road, on his second visit to Mr. Gilchrist. Dialing, however, was only one of the many accomplishments of this learned butler, who Ferguson assures us was profoundly conversant both with arithmetic and mathematics, played on every known musical instrument except the harp, understood Latin, French, and Greek, and could let blood and prescribe for diseases. These multifarious attainments, he owed, we are told, entirely to himself and to nature.

(*To be Continued*)

CABINET OF NATURE

THE GREAT KENTUCKY CAVERN.

Give me, ye powers, the wondrous scenes to show,
Conceal'd in darkness, in the depths below.

For a very interesting account of this stupendous cavern, which is unparelleled in the history of subterraneous wonders, we are indebted to Dr. Nahum Ward, who published it in the Monthly Magazine of October, 1816. It is situated in Warren County, and in a territory not mountainous, but broken, differing in this respect from all other caverns hitherto known. The Doctor, provided with guides, two large lamps, a compass, and refreshments, descended a pit forty feet in depth, and 120 in circumference: having a spring of fine water at the bottom, and conducting to the entrance of the cavern. The opening, which is to the north, is from forty to fifty feet high, about thirty in width. It narrows shortly after, but again expands to a width of

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thirty or forty feet, and a height of twenty, continuing these dimensions for about a mile, to the first *hoppers*,* where a manufactory of saltpetre has recently been established. Thence to the second of these hoppers, two miles from the entrance, it is forty feet in width, and sixty in height. Throughout nearly the whole of the distance handsome walls have been made by the manufacturers, of the loose lime-stones. The road is hard, and as smooth as a flag pavement. In every passage which the Doctor traversed, the sides of the cavern were perpendicular, and the arches, which have bid defiance even to earthquakes, are regular. In 1802 when the heavy shocks of earthquakes came on which were so severely felt in this part of Kentucky, the workmen stationed at the second hoppers, heard about five minutes before each shock, a heavy rumbling noise issue from the cave, like a strong wind. When that ceased, the rocks cracked, and the whole appeared to be going in a moment to final destruction. However, no one was injured, although large portions of rock fell in different parts of the cavern.

In advancing into the cavern, the avenue leads from the second hoppers, west, one mile; and thence south-west, to the chief area or city, which is six miles from the entrance. This avenue, throughout its whole extent from the above station to the cross-roads, or chief area, is from sixty to one hundred feet in height, of a similar width, and nearly on a level, the floor or bottom being covered with loose lime-stone, and saltpetre earth: "When," observes the Doctor, "I reached this immense area (called the chief city) which contains upwards of eight acres, without a single pillar to support the arch, which is entire over the whole, I was struck dumb with astonishment.—Nothing can be more sublime and grand than this place, of which but a faint idea can be conveyed, covered with one solid arch, at least one huudred feet high, and to all appearance entire."

Having entered the area, the Doctor perceived five large avenues leading from it, from sixty to one hun-

*A hopper is an inverted cone, into which corn is put at a mill before it runs between the stones.

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dred feet in width, and about forty in height. The stone walls are arched, and were from forty to eighty feet perpendicular in height before the commencement of the arch.

In exploring these avenues, the precaution was taken to cut arrows, pointing to the mouth of the cave, on the stones beneath the feet, to prevent any difficulty in the return. The first which was traversed, took a southerly direction for more than two miles: when a second was taken, which led first east, and then north, for more than two miles further. These windings at length brought the party, by another avenue, to the chief city again, after having traversed different avenues for more than five miles. Having reposed for a few moments on slabs of limestone near the centre of this gloomy area, and refreshed themselves and trimmed their lamps, they departed a second time, through an avenue almost north, parallel with the one leading from the chief city to the mouth of the cavern; and having proceeded upwards of two miles, came to the second city. This is covered with a single arch, nearly two hundred feet high in the centre, and is very similar to the chief city, except in the number of its avenues which are two only. They crossed it over a very considerable rise in the centre, and descended through an avenue which bore to the east, to the distance of nearly a mile, when they came to a third area, or city, about one hundred feet square, and fifty in height, which had a pure and delightful stream of water issuing from the side of a wall about thirty feet high, and which fell on a broken surface of stone, and was afterwards entirely lost to view.

Having passed a few yards beyond this beautiful sheet of water, so as to reach the end of the avenue, the party returned about one hundred yards, and passing over a considerable mass of stone, entered another, but smaller avenue to the right, which carried them south, through a third, of an uncommonly black hue, somewhat more than a mile; when they ascended a very steep hill about sixty yards, which conducted them to within the walls of the fourth city. It is not inferior to the second, having an arch which covers at least six acres. In this last avenue, the extremity of

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which cannot be less than four miles from the chief city, and ten from the mouth of the cavern, are upwards of twenty large piles of saltpetre earth on the one side, and broken lime-stone heaped up on the other, evidently the work of human hands.

(*To be continued.*)

DEPARTMENT OF NATURAL HISTORY.

MASON-BEES.

It would not be easy to find a more simple, and, at the same time, ingenious specimen of insect architecture, than the nests of those species of solitary bees, which have been justly called mason-bees (*Megachile* LATREILLE.) Reaumur, who was struck by the analogies between the proceedings of insects and human arts, first gave to bees, wasps, and caterpillars those names which indicate the character of their labors; and which, though they may be considered a little fanciful, are at least calculated to arrest the attention. The nests of mason-bees are constructed of various materials; some with sand, some with earth mixed with chalk, and some with a mixture of earthy substances and wood.

Mason-Bee—(*Anthophora retusa.*)—Natural size.

On the north-east wall of Greenwich Park, facing the road, and about four feet from the ground, we discovered, December 10th, 1828, the nest of a mason-bee, formed in the perpendicular line of cement between two bricks. Externally there was an irregular cake of dry mud, precisely as if a handful of wet road-stuff had been taken from a cart rut and thrown against the wall; though, upon closer inspection the cake contained more small stones than usually occur in the mud of the

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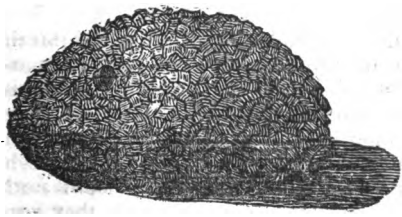
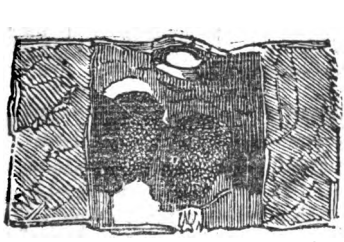
adjacent cart-ruts. We should, in fact, have passed it by without notice, had there not been a circular hole on one side of it, indicating the perforation of some insect. This hole was found to be the orifice of a cell about an inch deep, exactly of the form and size of a lady's thimble, finely polished, and of the color of plaster of Paris, but stained in various places with yellow.



Exterior wall of Mason-Bee's nest.

This cell was empty; but upon removing the cake of mud, we discovered another cell, separated from the former by a partition about a quarter of an inch thick, and in it a living bee, from which the preceding figure was drawn, and which, as we supposed, had just changed from the pupa into the winged state, in consequence of the uncommon mildness of the weather. The one which had occupied the adjacent cell had, no doubt, already dug its way out of its prison, and would probably fall a victim to the first frost.



Cells of a Mason-Bee (*Anthophora retusa.*)—One third the natural size.

Our nest contained only two cells—perhaps from there not being room betweeen the bricks for more.

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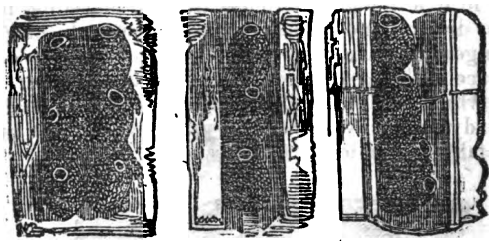
An interesting account is given by Reaumur of another mason-bee (*Megachile muraria*,) selecting earthly sand, grain by grain; her gluing a mass of these together with saliva, and building with them her cells from the foundation. But the cells of the Greenwich Park nest were apparently composed of the mortar of the brick wall; though the external covering seems to have been constructed as Reaumur describes his nest, with the occasional addition of small stones.

It is in instances such as these, which exhibit the adaptation of instinct to circumstances, that our reason finds the greatest difficulty in explaining the governing principle of the minds of the inferior animals. The mason-bee makes her nest by an invariable rule: the model is in her mind, as it has been in the mind of her race from their first creation: they have learnt nothing by experience. But the mode in which they accomplish this task varies according to the situations in which they are placed. They appear to have a glimmering of reason, employed as an accessary and instrument of their instinct.



Cells of Mason-Bees, built, in the first and second figures, by *Osmia bicornis* between bricks, and in the third, by *Megachile muraria* in the fluting of an old pilaster; about half the natural size.

The structure, when finished, consisted of a wall of clay supported by two contiguous bricks, enclosing six chambers, within which a mass of pollen, rather larger than a cherry-stone, was deposited, together with an egg, from which in due time a grub was hatched.—Contrary to what has been recorded by preceding naturalists, with respect to other mason-bees, we found the

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cells in this instance quite parallel and perpendicular; but it may also be remarked, that the bee itself was a species altogether different from the one which we have described above as the *Anthophora retusa*, and agreed with the figure of the *Osmia bicornis*.

There was one circumstance attending the proceedings of this mason-bee which struck us not a little, though we could not explain it to our own satisfaction. Every time she left her nest for the purpose of procuring a fresh supply of materials, she paid a regular visit to the blossoms of a lilac tree which grew near. Had these blossoms afforded a supply of pollen, with which she could have replenished her cells, we could have easily understood her design; but the pollen of the lilac is not suitable for this purpose, and that she had never used it was proved by all the pollen in the cells being yellow, whereas that of the lilac is of the same pale, purple color as the flowers. Besides, she did not return immediately from the lilac tree to the building, but always went for a load of clay. There seemed to us, therefore, to be only two ways to explain the circumstance;—she must either have applied to the lilac blossoms to obtain a refreshment of honey, or to procure glutinous materials to mix with the clay.

When employed upon the building itself, the bee exhibited the restless disposition peculiar to most hymenopterous* insects; for she did not go on with one particular portion of her wall, but ran about from place to place every time she came to work. At first, when we saw her running from the bottom to the top of her building, we naturally imagined that she went up for some of the bricklayer's mortar to mix with her own materials: but upon minutely examining the walls afterwards, no lime could be discovered in their structure, similar to that which was apparent in the nest found in the wall of Greenwich Park.

Reaumur mentions another sort of mason-bee, which selects a small cavity in a stone, in which she forms her nest of garden mould moistened with gluten, and afterwards closes the hole with the same material.

* The fifth order of Linnæus; insects with four transparent veined wings.

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The Egg-Plant and Love-Apple.

LOVE-APPLE—*Solanum lycopersicum*

The love-apple, or tomata, is a native of the tropical parts of South America. It is an annual: the leaves and flowers have some resemblance to those of the potatoe, only the latter are yellow. The fruit, when ripe, attains the size of a small apple. It is compressed at the crown and base, and furrowed along the sides; the whole is of uniform color, and smooth and shining. There are some varieties both in the shape and color of the fruit; bright red and orange are the prevailing colors. The love-apple is used for eating in every stage of its growth. When green, it is pickled or preserved; when ripe, it is employed for soups and sauces and the juice is made into a kind of ketchup.

THE EGG-PLANT

Belongs to the same family, has the same habits, and requires nearly the same culture as the love apple. It is found in the warmer parts of Africa, Asia, and America: it is an annual; rises to the height of about two feet; bears light violet flowers, which are followed by large fleshy berries, having the size and shape, and, in the white varieties, very much the color and resemblance of eggs,—whence the common name. The forms of the egg-plant, are globe-shaped and oval; and some of both forms are white, and others purple or mottled. The egg-plant, according to the 'Hortus Kewensis, has been cultivated in England since the year 1596; but it has seldom been made use of as an article of cookery. Even on the continent, where the

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temperature agrees better with its habits, it has not so much flavor as the love apple; but still it is used in soups and stews, and also eaten sliced and fried with oil or butter. Though the young plants require to be forwarded in a hot-bed, they may afterwards be made to produce fruit on warm and sheltered borders; and both they and the love-apple succeed best when placed against a sunny wall.

Beside the white egg-plant, (the *Solanum melongena* of Linnæus,) which has been long cultivated as a curiosity, though never used as food, there are several others: and M. Dunal, in his History of Solanums, has separated the edible ones, of which he has enumerated four varieties, into the species of *Solanum esculentum*. The round and the long variety of the esculent are both cultivated in the garden of the Horticultural Society. The plants, which are annuals, are raised to the height of nine or ten inches in the stove, and then planted on the borders in the open air where they grow to the height of between two and three feet. The fruits of both are large: the round, or rather oval (for that is its proper shape), is four inches long and about three thick. This variety is called the Mammoth egg-plant. The long has larger fruit, measuring sometimes as much as eight inches in length. They vary much more in color than the round,—some of them being streaked with yellow. Other varieties are described as being found in India; but the seeds that have been sent to this country have produced fruit similar to the kinds now mentioned.

Various species of the solanum are common in the Levant: and three are particularly described by Dr. Walsh in the Horticultural Transactions. The following is the substance of his communication:—

Solanum Æthiopicum is the scarlet egg-plant, of which the fruit is produced in the neighborhood of Constantinople; but it is rare, being never sold in the markets, and but seldom seen in private gardens. It is used as an ingredient in soups.

Solanum Sodomeum is a purple egg-plant, of which the fruit is large and handsome. A species of *cynips* often attacks and punctures the rind; upon which the whole fruit gangrenes, and is converted into a substance

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like ashes, while the outside is fair and beautiful. It is found on the borders of the Dead Sea, and is that apple, the external beauty and the internal deception of which have been so celebrated in fabulous, and so perplexing in true history.

"Dead-Sea fruits, that tempt the eye,
But turn to ashes on the lips."

The dreadful judgment of the cities of the plain, recorded in sacred history,—the desolation around the Dead Sea,—the extreme saltness of its waters, the bitumen, and, as is reported, the smoke that sometimes issued from its surface,—were all calculated for making it a fit locality for superstitous terrors; and among the rest were the celebrated apples which are mentioned by Josephus, the historian of the Jews, not as fabulous matters of which he had been told, but as real substances which he had seen with his own eyes. He says, they "have a fair color, as if they were fit to be eaten; but if you pluck them with your hand, they vanish into smoke and ashes."

Milton, who collected all of history or fable that could heighten the effect of his poem, refers to those apples as adding new anguish to the fallen angels, after they had been transformed into serpents, upon Satan's return from the temptation of man.

——————"There stood
A grove hard by,
——— laden with fair fruit, like that
Which grew in Paradise, the bait of Eve,
Us'd by the Tempter: on that prospect strange
Their earnest eyes they fix'd, imagining,
For one forbidden tree, a multitnde."
* * * * * *
"They, parched with scalding thirst, and and hunger fierce,
——————— could not abstain;
But on they rolled in heaps, and up the trees
Climbing, sat thicker than the snaky locks
That curl'd Megæra: Greedily they pluck'd
The fruitage fair to sight, like that which grew
Near that bituminous lake where Sodom placed;
This more delusive, not the touch but taste
Deceives; they fondly thinking to allay
Their thirst with gust, instead of fruit
Chew'd bitter ashes, which the offended taste
With sputtering noise rejected."

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CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

COMETS.

"At His command, affrighting human kind,
Comets drag on their blazing lengths behind,
And though sometimes they near approach the sun,
Sometimes beyond our system's orbit run,
Throughout their course they act their Maker's will,
His power declare, His purposes fulfil."

"*They fought from heaven; the stars, in their courses, fought against Sisera.*"—Jud. v. 20.

The astronomy of comets may be said to be in its infancy, scarcely any knowledge having been gained of them before the 17th century. The ancients, it seems knew very little of their nature. Seneca relates his having seen three: but they were merely considered, both by him and his cotemporaries, as wandering stars, or fiery meteors, generated of bituminous exhalations from the earth, which, being raised into the higher regions of the air, were set on fire, and there continued till they were consumed. They were also believed to be ominous phenomena, displayed by the Deity to terrify mankind, and give warning of some dreadful calamity; and the same opinion has prevailed from the time of the Roman empire till the illustrious Newton extending his discoveries beyond even the confines of our system, in his aerial researches through the regions of space, discovered the periodical return of these (till then) awful strangers.

Comets, according to sir Isaac Newton, are compact durable bodies; that is a kind of planets which move in very oblique elliptical orbits every way with the greatest force persevering in their motions even against the course of the planets; and their tails are very thin and slender vapors emitted by the head or nucleus of the comet, ignited or heated by the sun. But the length of time in which they are performing their revolutions, and the short stay they make within sight of our planet must long render their history dark and obscure.

Some philosophers, have asserted, that the matter which constitutes their tails is not an illuminated vapor, but a self-shining substance, which in all their positions and whatever the directions of their motions,

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whether to or from the sun, is thrown off from its dark atmosphere in a direction opposite the sun a short time before or after its perihelion. Others have shown that there is a perfect analogy between their tails and the aurora borealis, and suppose that they are both formed from the emanation of the electric fluid from their respective bodies, although it was the opinion of Sir Isaac Newton that they were planetary bodies, most likely inhabited. Yet others have differed from him and have supposed that they were formed

> From their huge vap'ry train, perhaps to shake
> Reviving moisture on the numerous orbs
> Through which their long ellipsis winds.
>
> THOMPSON.

Others again have supposed that they were fiery bodies designed perhaps

> To lend new fuel to declining suns,
> To light up worlds, and feed the eternal fire.
>
> THOMPSON.

Some have supposed them to be worlds which having performed their office in creation, are in a state of fusion. But the still more prevailing opinion than either that has been mentioned is, that one of them is intended to burn up this earth. This opinion, which seems to have been almost coeval with time itself, is supposed to have its foundation in the sacred writings.

The comet of 1680, is supposed to be the one intended to perform this dreadful operation: the period of its return is 575 years and its distance from the sun is 13 millions of miles. This Comet passed by the earth's orbit in the year of the universal deluge, and by its attraction, is supposed to have assisted in elevating the waters, and drawing them over the surface. In the year 1680, it passed very near the earth's orbit, but she was then in a distant part. It approached the sun within one-sixth of his diameter from his surface, moving with the velocity of 880,000 miles an hour, and was heated to a degree of intensity 2000 times greater than the heat of red-hot iron. It will return in the year 2225.

The number of Comets is supposed to be no less than 450. There are Comets of much shorter periods than

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that of 1680. The Comet *Halley* appeared in 1759, its period is 75 years: and it will return again in 1834 or 1835.

HISTORICAL AND PHYSICAL GEOGRAPHY OF THE HOLY LAND—No. IV.

RIVERS

In consequence of the paucity of showers in the east, WATER is an article of great importance to the inhabitants. Hence, in Lot's estimation, it was a principal recommendation of the plain of Jordan that it was *well watered every where* (Gen. xiii. 10.): and the same advantage continued in later ages to be enjoyed by the Israelites, whose country was intersected by numerous brooks and streams.

Although *rivers* are frequently mentioned in the sacred writings, yet, strictly speaking, the only river in the Holy Land is the Jordan, which is sometimes designated in Scripture as *the river* without any addition; as also is the Nile (Gen. xli. 1. Exod. i. 22. ii. 5. iv. 9. vii. 18. and viii. 3. 9. 11.), and occasionally, the Euphrates (as in Jer. ii. 18.): in the passages here referred to, the tenor of the discourse must determine which is the river actually intended by the sacred writers. The name of river is also given to inconsiderable streams and rivulets, as to the Kishon (Judges iv. 7. and v. 21.) and the Arnon. (Deut. iii. 16.)

The principal river which waters Palestine is the JORDAN or *Yar-Dan*, i. e. the river of Dan, so called because it takes its rise in the vicinity of the little city of Dan. Its true source is in the lake Phiala near Cæsarea Philippi, at the foot of Antilibanus, or the eastern ridge of mount Lebanon, whence it passes under ground, and, emerging to the light from a cave in the vicinity of Paneas, it flows due south through the centre of the country, intersecting the lake Merom and the sea or lake of Galilee, and (it is said) without mingling with its waters; and it loses itself in the lake Asphaltites or the Dead sea, into which it rolls a considerable volume of deep water, and so rapid as to prevent a strong, active, and expert swimmer from swimming

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across it. The course of the Jordan is about one hundred miles; its breadth and depth are various. All travellers concur in stating that its waters are turbid, from the rapidity which they flow.

Anciently, the Jordan overflowed its banks about the time of barley-harvest (Josh. iii. 15. iv. 18. 1 Chron. xii. 15. Jer. xlix. 19.) or the feast of the passover; when, the snows being dissolved on the mountains, the torrents discharged themselves into its channel with great impetuosity. Its banks are covered with various kinds of bushes and shrubs, which afford an asylum for wild animals now, as they did in the time of Jeremiah, who alludes to them. (Jer. xlix. 19.)

The other remarkable streams or rivulets of Palestine are the following: viz. 1. The *Arnon*, which descends from the mountain of the same name, and discharges itself into the Dead Sea: —2. The *Sihor* (the Belus of ancient geographers, at present called the Kardanah,) has its source about four miles to the east of the heads of the river Kishon. It waters the plains of Acre and Esdraelon, and falls into the sea at the gulf of Keilah: —3. The brook *Jabbok* takes its rise in the same mountains, and falls into the river Jordan:— 4. the *Kanah*, or brook of reeds, springs from the mountains of Judah but only flows during the winter: it falls into the Mediterranean Sea near Cæsarea:—5. The brook *Besor* (1 Sam. xxx. 9.) falls into the same sea between Gaza and Rhinocorura:—6. The *Kishon* issues from the mountains of Carmel, at the foot of which it forms two streams; one flows eastward into the sea of Galilee, and the other, taking a westerly course through the plain of Jezreel or Esdraelon, discharges itself into the Mediterranean Sea. This is the stream noticed in 1 Kings xviii. 40.:—7. *Kedron*, *Kidron*, or *Cedron*, as it is variously termed,* runs in the valley of Jehoshaphat, eastward of Jerusalem, between that city and the mount of Olives; except during the winter, or after heavy rains, its channel is generally dry, but when swollen by torrents it flows with great impetuosity.

* 2 Sam. xv. 23. 1 Kings xv. 13. 2 Kings xxiii. 6. 12. 2 Chron. xxix. 16. Jer. xxxi. 40. John xviii. 1.

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MODERN ASPECT OF THE CITY OF ANTIOCH.

The city of Antioch, now called by its inhabitants Antaky, is seated at the foot of a steep and bare hill, which terminates the range of Jebel Okrah, the mount Casius of the ancients standing on its north-western side, and having open before it a wide valley, and the range of Jebel Ahhmar from west to north, at the distance of from ten to fifteen miles. It thus resembles, very nearly, the situation of Balbeck in the valley of Bukhah, as these mountains are not much inferior to Libanus and Anti Libanus in height, and the valley between them is about the same breadth, and takes the same direction of N. E. leaving an unbounded plain in that quarter: but here the hill that overlooks the town is steeper and more abrupt than at Balbeck, and the vale in which it stands is more thickly wooded and highly cultivated, as the course of the Ahssy through it distributes fertility along its winding way.*

The town, though inferior only to Aleppo, Damascus, and Hamah, in size, and, consequently larger than any of those on the coast, is not so well built as these generally are, and has no large public buildings of any

*Antioch is described by Benjamin, of Tudela, to be situated in the valley of Jabok, upon the river Pir, which comes from Lebanon through the land of Hamath. It was thought in his day, to be the best fortified place in the hands of the gentiles.

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beauty. The houses are mostly constructed of stone, and are all pent-roofed and covered with red tiles; many of them are three stories high, but more generally two, and the upper part is then constructed of wood. The streets are narrow, having a high raised causeway of flat pavement on each side for foot passengers, and a very narrow and deep passage between these for horses, seldom wide enough to admit of two passing each other. The bazars are mostly open, and resemble those of the country generally. They are unusually numerous, however, in proportion to the size of the town, as this is a mart of supply for an extensive tract of country around it. All the articles in demand are found here in abundance, and the manufactures of the town itself consists in coarse pottery, cotton, cloth, some silk twist, several tanneries, and saddlery; for which last article, particularly bridles, martingales, &c. of fancy work, in leather, the workmen of Antaky are celebrated. The population here is thought to exceed 10,000, among which there are counted about 150 Christian families, and 20 Jewish ones. The language of the people is Turkish, the Mahommedans speaking no other, and the Christians only understanding Arabic from their connexion with the country to the southward in their commercial transactions. The Mahommedans have fourteen mosques, six of which are ornamented with tall and slender white minarehs, with round close galleries, and blue pointed tops, surmounted by the crescent, in the purely Turkish taste; six others have lower and thicker minarehs of octangular shafts, with open galleries, and a sort of flat dome or umbrella top in the Syrian-Arabian style; and two are merely small venerated tombs used as places of prayer. There are two khans, and several fountains, all of them of a very ordinary kind. We noticed one of the last, called Ain-el-Omra, or the fountain of life, between the stones of which were driven in some thousands of nails. Its waters, are indeed, excellent, and, being esteemed as possessing several medicinal virtues, the afflicted who drink of them drive in a nail near the spot, either as a propitiatory offering, or a token of gratitude after recovery, to the supposed genius of the stream.

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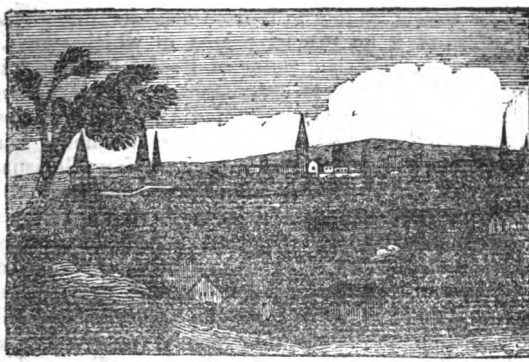
The Christians have made several unsuccessful efforts to build a church for themselves here; but, though they are not wanting in wealth, and successive firmans have been obtained from Stamboul for that purpose, yet, the fanaticism of the Turks, and some unfortunate fatality which they think attached to the town itself, has hitherto always obstructed its execution. They resort, therefore, to a cave on the east end of the town, for the performance of their religious duties, in which they are additionally devout, from the apparent persecution under which they live, in this respect at least. The Jews assemble on their sabbath in a small room devoted to their synagogue in the house of their chief, and are there unmolested.—*Buckingham's Travels among the Arab Tribes.*

TOPOGRAPHICAL SKETCHES.—No. I.



COPENHAGEN,

The capital of the kingdom of Denmark and the residence of its monarch, is one of the finest cities in the north of Europe. In elegance and beauty it surpasses even St. Petersburg, for although the proud city of the autocrat can boast of edifices of greater architectural splendor, yet as these are mingled with paltry wooden buildings and unsightly log huts they present the disagreeable picture of meanness contrasted with magnificence and squalid poverty with overgrown wealth.

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Copenhagen, on the other hand, exhibits a more equable and uniform appearance; its streets are regular and well lighted, its houses spacious and well built; those of the nobility in particular are splendid buildings, generally of hewn stone and in the Italian style of architecture. This beauty is owing in a great measure to a dreadful fire which in 1728 consumed a large portion of the city, destroying five churches and sixty-seven streets. The inhabitants following the example of the people of London, availed themselves of the opportunity thus afforded to improve their city, and laid out wider streets and erected new and far more costly edifices in the place of those which had fallen before the devouring element. That part of the city called the New Town was erected by Frederick the fifth and is extremely beautiful. It consists of a splendid octagon containing four uniform and elegant buildings of stone, with four spacious streets leading to it from opposite directions; in the centre is an extensive area in which stands a magnificent equestrian statue of Fredrick the fifth in bronze, said to have cost £80,000. Part of Copenhagen is built upon an Island called Amac, which is separated from the rest of the city by a broad canal. This part of the city is called *Christianshafen*, from Christian the second, by whom the island was consigned to a Colony from Friesland, at the request of his wife, for the purpose of supplying her with vegetables, eggs, cheese, and butter. The descendants of these colonists still inhabit the island, and as they preserve the dress and habits of their Friesland ancestors, and still enjoy peculiar privileges, they appear quite a distinct race from the native Danes—for all minor offences they are amenable only to their own tribunals, but for capital crimes are subject to the jurisdiction of the King's court of justice at Copenhagen. The whole island is laid out in gardens and vegetables, and still supplies the city with poultry, milk, butter and vegetables, according to the original design.

Copenhagen is not an ancient city; the precise date of its foundation is disputed, but may be placed about the middle of the twelfth century; at this time it consisted of a small fishing village and was presented by

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the King to one of his bishops. About the same period a Castle was erected for the protection of the people against the swarms of pirates who then infested the Baltic; the facilities of the situation for the prosecution of commerce, and the security afforded by the castle when the rest of the country was open to invasion, induced numbers of the Zealanders to collect in this spot, and thus a city was speedily built up. Toward the middle of the fifteenth century it was chosen as the royal residence by Christopher of Bavaria, it subsequently became the capital of the kingdom, and has been rapidly increasing in magnitude and beauty ever since.—The great prosperity of the city was owing principally to the busy spirit of commerce, which but a few years since was every where visible in its streets; its harbor was always crowded with the ships of every nation, and the broad canals which intersect its streets resounded with the merry laugh and song of the mariners who brought their merchandize to the very doors of the spacious warehouses which lined its quays. Of late, however, its commerce has very much declined.

Copenhagen contains 230 streets, and 13 public squares; 22 churches, 22 hospitals, 30 almshouses, 114 schools, and 3 convents. Among its more splendid buildings we may mention the four palaces of the King, the arsenal which contains the Royal Library of 400,000 volumes, the exchange, the bank, and the university. In 1807, the town was bombarded by the English and an immense number of houses with many splendid edifices were entirely destroyed: upwards of 2000 of the inhabitants lost their lives. The city at present contains about 110,000 inhabitants, of whom nearly 3000 are Jews. Copenhagen is situated in 55° 41′ 44″ N. lat. and 12°. 35′. 6″ E. lon. on the Islands of Zealand and of Amac, which are separated by a narrow branch of the Sea.

All travel has its advantages; if the passenger visits better countries, he may learn to improve his own; and if fortune carries him to worse, he may learn to enjoy it.

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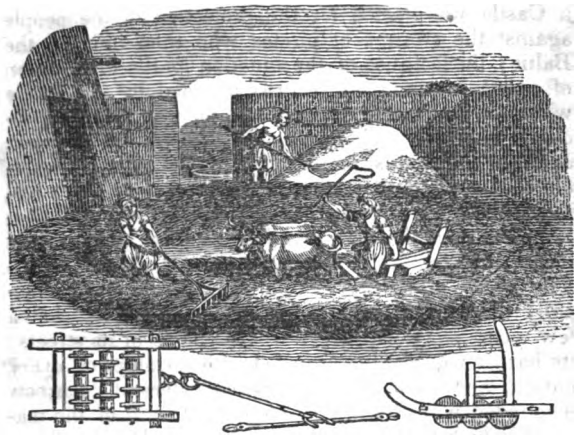

THRESHING IN THE EAST.

To introduce the information furnished by the above sketch, we shall first notice the *threshing floor;* which is a level, smooth area, enclosed by mud-brick walls, having a proper opening for entrance, and on one side of it the barn or garner, the door of which is seen in the wall. The area enclosed by these walls is either prepared according to the account of Dr. Shaw, or naturally smooth, hard, and bound, so as to be fit for using without that preparation. The figures at the lower corner of the plate, represent the wain, car, cart, drag, or threshing instrument, so called by different translators of the Sacred Scriptures. In the left hand figure it is supposed to be set upright on one of its sides, and appears to consist of a strong square frame, well secured with iron pins to keep it tight and steady: within this are three rollers, whose pins at each end are inserted into the frame, and pass through it; on each of these rollers are circular iron *cutters*, with sharp edges, the track of which lies *between* that of the other cutters which compose the instrument; and it is these cutters that are furnished with teeth, which are alluded to in the forty-first chapter and fifteenth verse of the prophet Isaiah.

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The right hand figure is an elevation, or side view of the same instrument, which shows that the external square frame turns upward in front, that it may more readily pass over the straw, or haulm, that lies before it. The pins which mark the insertion of the rollers are also seen; and from this frame rises a seat or kind of chair, for the convenience of the driver. The yoke is represented in connexion with the left hand figure, to which it joins by rings and a hook which allow of free motion; and the other end, which is borne by the oxen, is equally constructed for securing the same advantage.

The principal subject of the above draught shows the manner of using this machine, which presents, what it proposes to illustrate, in a more lively manner to the eye than it is possible for the best written account to describe.

Beyond the circle of corn strewed for threshing, a man is engaged in winnowing a quantity of corn, which is already threshed, by throwing it up against the wind, which blows away the chaff, but leaves the grains of corn; the weight of which ensures their falling down. Observe the form of the *fan* used by this figure: it resembles a small shovel, with a long handle; unlike any kind of corn fan, or winnowing machine used in this country: the representation of it therefore is well adapted to correct whatever erroneous conceptions of the instrument the reader might heretofore have entertained.

The number of passages in Scripture which may be explained or illustrated by means of the above delineations, is too great to be enumerated here; and the youthful reader will find it a delightful task to search the Bible for, and compare them with this account. We shall, however, refer him to the second verse of the eighty-ninth Psalm, the seventh verse of the fifteenth chapter of Jeremiah, and especially to the twelfth verse of the third chapter of St. Matthew, where the process of winnowing with the fan is alluded to; and remark in conclusion that we here see the import of the phrase "thou shalt not muzzle the ox when he treadeth out the corn," as applied by the apostle to ministers—that is, "it is not fit that he who contributes to prepare food

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for others should be denied a portion of sustenance for himself." And it is a remarkable fact, that among all the nations of the East, the oxen which tread out the corn never were, and to this day are *not* muzzled, although they always were and still are muzzled when employed in any other kind of labor.

SKETCHES OF CHARACTER.

SIR WILLIAM HERSCHEL.

This eminent astronomer was born at Hanover in 1730. His father was a musician. At the age of 14 he was placed in the band of the Hanover regiment of guards. About the year 1758 he proceeded with a detachment of his regiment to England, accompanied by his father, who, after a short stay returned to his native country, leaving his son in England. For several years he obtained a subsistence by his musical talents, devoting his leisure hours to the study of the English and Italian languages; he also made some progress in the Greek and Latin. The bent of his inclination during this period, was however, principally directed to mathematics, and astronomy, and frequently after a harassing day of 14 or 16 hours occupied in his professional avocations, he would seek relaxation, if such it might be termed, in extending his knowledge in his favorite pursuits.

Having in the course of extensive reading made some discoveries which awakened his curiosity, he commissioned a friend in London to procure him a telescope of large dimensions, but the price being above his limited means, he resolved to construct one himself. After innumerable disappointments, he completed a five feet Newtonian reflector. The success of his first attempt encouraged him to fresh efforts, and in a short time he made telescopes from seven to twenty feet. As a proof of his perseverance, it is said, that in perfecting the object mirror for his seven feet instrument, he finished two hundred before he produced one that satisfactorily answered his purpose.

As his love for the study of astronomy increased, he gradually lessened his professional engagements, and in

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1779 he commenced a regular review of the heavens, star by star. In the course of eighteen months' observation he remarked that a star, which had been recorded by former astronomers as a fixed star, was gradually changing its position; and after much attention he was enabled to ascertain that it was an undiscovered planet. He communicated the fact to the Royal Society, who elected him a fellow, and decreed him their annual gold medal. This great discovery was made on the thirteenth of March, 1781, and bestowed on that planet the name of *Georgium Sidus*, in compliment to the king, who in consequence of his merit settled on him a handsome salary, which enabled him to relinquish his professional occupations, and devote himself wholly to the study of astronomy.

He shortly afterwards, fixed his permanent residence at Slough, near Windsor, where, in the hope of facilitating and extending his researches, he undertook to construct a telescope of forty feet, which was completed in the year 1787. With the aid of this ponderous instrument, assisted by others of a more manageable size, he continued to enrich the stores of astronomical science. In these researches he was materially assisted by his sister, Miss Caroline Herschel, who was equally devoted to the study which has immortalized her brother.

In 1793 he announced the discovery of a volcanic mountain in the moon, and four years afterwards communicated the account of two other volcanoes in that orb, which appeared in a state of eruption. Showing these apparent eruptions at one time to a gentleman, the latter exclaimed, that he not only saw the *fire* but the *smoke*.

It will be impossible in a sketch like the present, and perhaps also superfluous, to detail the many important discoveries which have been made by this great astronomer; they are well known to the scientific world. By his labors he is justly esteemed as the most celebrated man of his age. Various public bodies testified their respect for his talents, and his sovereign conferred on him the honor of knighthood.

Sir William died on the 23d of August, 1822, leav-

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ing behind him an unblemished reputation in private life. His name will descend to posterity as one of the greatest astronomers of the age in which he lived.

YOUNG LADIES' DEPARTMENT.

TO YOUNG LADIES.

To you, my young friends, I would address myself, in the language of deep and earnest interest. You are now at that delightful period of life, which is like spring among the seasons, redolent of beauty and freshness, and giving fair promise of the rich fruits of maturer years. Take heed the young blossoms be not blighted. Call to mind the countless advantages which have been bestowed on you—reflect upon the anxious solicitude of the fathers who wait to see you the object of their pride, as well as the sources of their happiness—remember the cares, the exertions, the almost heart-breaking anxiety of the mothers who have guided your infant feet to the threshold of the temple of knowledge, and then press forward "in the race set before you." You are entering upon a noble career. The pure, and elevated, and holy duties which are peculiarly a woman's, will soon claim your undivided attention. Let me pray you, therefore, so to discipline your hearts, so to cultivate your minds, so to purify your spirits, now, during the unbroken leisure of youth, that the hour of trial may find you 'with your lamps trimmed and burning.' You have begun well—go on then in the same course, and remember that "of those to whom much is given, much will be required;" and that genius and knowledge, while they lay claim to the highest honors which men can bestow, also bear with them the highest responsibilities both to God and man. Science is now opening to you her richest stores of honor, and usefulness; and the prayers of parents and friends are following you, when you are utterly unconscious of them, Pause then—in the cool freshness of the morning of life, before you wax faint in the noonday heats—pause and form for yourselves the noble resolutions which should direct your future

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e. Look back through the shadowy vista of past, ars, and behold what are the foundations of the most sting honors of men. Look forward, with the eye of ith, to the glories of the promised land; and while ou weigh well the different results of moral conduct, ake heed that you "keep your hearts with all dili- gence, for out of them are the issues of life." Form your taste on the classics, and your principles on the book of all truth. Let the dawn of your being be hal- lowed by that pure devotion, which is ever an offering of a "sweet smelling savor" to the bounteous giver of all good. Let the first fruits of your intellect be laid before the altar of *Him* who breathed into your nostrils the breath of life, and with that breath your immortal spirit: and while your life furnishes the most striking illustration of the benefits of education, let it be your care so to persevere unto the end that it may be said of each, in her own peculiar sphere, "Many daughters have done virtuously, but thou excellest them all."

Mrs. Embury.

POETRY & MUSIC.

THE PRAYER AT SEA.

Father Supreme!—to thee our prayers ascending,
Rise from the bosom of the heaving deep,
From the wide waste of troubled waters—blending,
With the free winds that o'er the billows sweep,
Far and resistless—wilt thou not attending
List to the voice of those who watch and weep?

O'er the vex'd world of waters still thou movest,
In the dark rushing of the billowy main;
Yet oft, with mercy's gentle voice, reprovest
The storm to calmness,—and we see thee then
Arching the clouds with glory—for thou lovest,
Even on the tempest's verge, to smile again.

Hast thou not measured out the seas, and given
Bounds to the whirlwind, which its rage adjust?
And shall we not adore thee?—Whom in heaven,
Or whom on earth, beside thee, shall we trust?
We, by thy breath, through Ocean's surges driven,
Like the tost sea-spray, or the scatter'd dust.

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Whom shall we fear beside thee?—Men, but thinking
On thy unfathomed depths, despair and die;—
Earth sees her GOD, and trembles—Ocean, sinking
Through his dark caverns, leaves his borders dry;—
The Heaven of Heavens, before thine anger shrinking,
Rolls like a scroll away, and shuns thine eye.

Whom shall we love beside thee?—Seas may sever
Hearts whose fond ties are but the wreaths of earth,
Wreaths of fast fading flowers which bloom, but ever
Die with the hour that gives their fragrance birth.
Thy love, unchanging and unending, never,
Saviour—oh never can we speak its worth!

Didst thou not veil thy glory, and, descending,
Dwell for our sakes in grief—and stoop to be
Even with the humble, humblest—poor and wending
By the rough mountain paths, or troubled sea?
Now thou dost hear our lonely cry ascending—
Whom shall we trust, Redeemer,—whom but thee?

On—let the winds sweep on—our prayers before thee,
Fraught with our sighs and sorrows shall appear;—
On—let the waves heave onward—we adore thee,
We trust, love, serve thee—how then shall we fear!
Even though thy tempests whelm us, we implore thee,
This, only this—be Thou, our refuge, near.

SHE HATH PASSED FROM THE EARTH.

BY O. W. W.

She hath passed from the earth, but we may not lament her,
Nor mourn her return to a holier clime;
She but lingered below, until He who had sent her,
Recalled her to Eden in morning's sweet prime.

Could the beauty and freshness of youth have retained her,
We had not been called o'er her slumber to weep;
Yet mourn not, since death in his power hath but gained her,
A joyful awaking from earth's transient sleep.

Ere the sorrows of earth or its passions had moved her,
Ere darkened the light of her innocent brow;
She bade a farewell unto those who so loved her,
And whispered—my Father, I come to thee now.

The terrors of death had no power to alarm her;
She felt not his darkness, and feared not his sting,—
The thought of her Saviour's kind mercy did calm her,
And the spirit went upward on faith's ardent wing.

In her beauty she sleeps, but we will not regret her—
Our tears may not moisten the flowers on her tomb:
For the smiles of her Saviour in mercy have met her—
Oh death thou art vanquished—and past is thy gloom.

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Then calm be the spot where her form now reposeth;
May the friends who so loved her revisit the grave,
And feel—though the cold sod her ashes encloseth—
She lives in the presence of Him who can save!

THE SUNDAY SCHOOL.

Group after group are gathering—such as prest
Once to their Saviour's arms, and gently laid
Their cherub heads upon his shielding breast,
Though sterner souls the fond approach forbade;
Group after group glide on with noiseless tread,
And round Jehovah's sacred altar meet,
Where holy thoughts in infant hearts are bred,
And holy words their ruby lips repeat,
Oft with a chastened glance, in modulation sweet.

Yet some there are, upon whose childish brows
Wan poverty hath done the work of care:
Look up, ye sad ones! 'tis your Father's house
Beneath whose consecrated dome you are:
More gorgeous robes ye see, and trappings rare;
And watch the gaudier forms that gaily move;
And deem, perchance, mistaken as you are,
The "coat of many colors" proves his love,
Whose sign is in the heart, and whose reward above.

And ye, blest laborers in this humble sphere,
To deeds of saint-like charity inclin'd,
Who from your cells of meditation dear
Come forth to guide the weak, untutor'd mind—
Yet ask no payment, save one smile refined
Of grateful love—one tear of contrite pain!
Meekly ye forfeit to your mission kind
The rest of earthly Sabbaths. Be your gain
A Sabbath without end, 'mid yon celestial plain!

NIGHT.

When I look forth into the face of night,
And see those silent orbs that gem the sky—
The moon that holds her glorious path on high—
The countless host of stars of lesser light,
All moving on their destined course aright,
Through the broad ocean of infinity,
Steer'd by the hand of Him whose glories lie
Beyond the stretch of mortal sense or sight—
When I behold all Heaven divinely bright
With this array, and downward turn mine eyes,—
My soul expands into its native might,
And loathes the burden of that coil that lies
Like lead upon the soul, and clogs its flight
Unto its purer seat and kindred skies.

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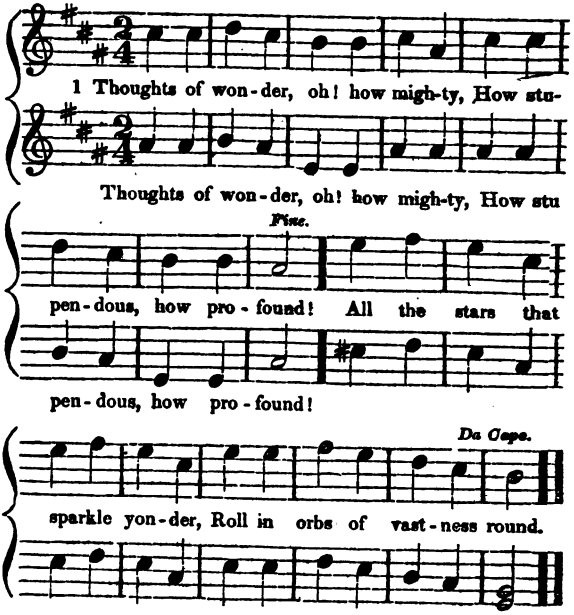
THOUGHTS OF WONDER. 8. 7.


1 Thoughts of won-der, oh! how migh-ty, How stu-
Thoughts of won-der, oh! how migh-ty, How stu
Fine.
pen-dous, how pro-found! All the stars that
pen-dous, how pro-found!
Da Capo.
sparkle yon-der, Roll in orbs of vast-ness round.

1 Thousands through the hours of darkness,
Stud the concave of the sky;
Thousands, thousands, hid from science,
Shine, unseen by mortal eye;
Thoughts of wonder, &c.

3 Pause, my thoughts;—lo! num'rous beings
Move on every planet there;
All, for breath, and life, and guidance,
Subject to their Maker's care:
Thoughts of wonder, &c.

4 Every world has hills and valleys,
And his hand formed every flower;
Every golden-winged insect,
Sporting in the fragrant bower;
Thoughts of wonder, &c.

5 Every little joy and sorrow,
Every hope and every fear;
Follow his supreme direction
Fully as some mighty sphere;
Thoughts of wonder, &c.

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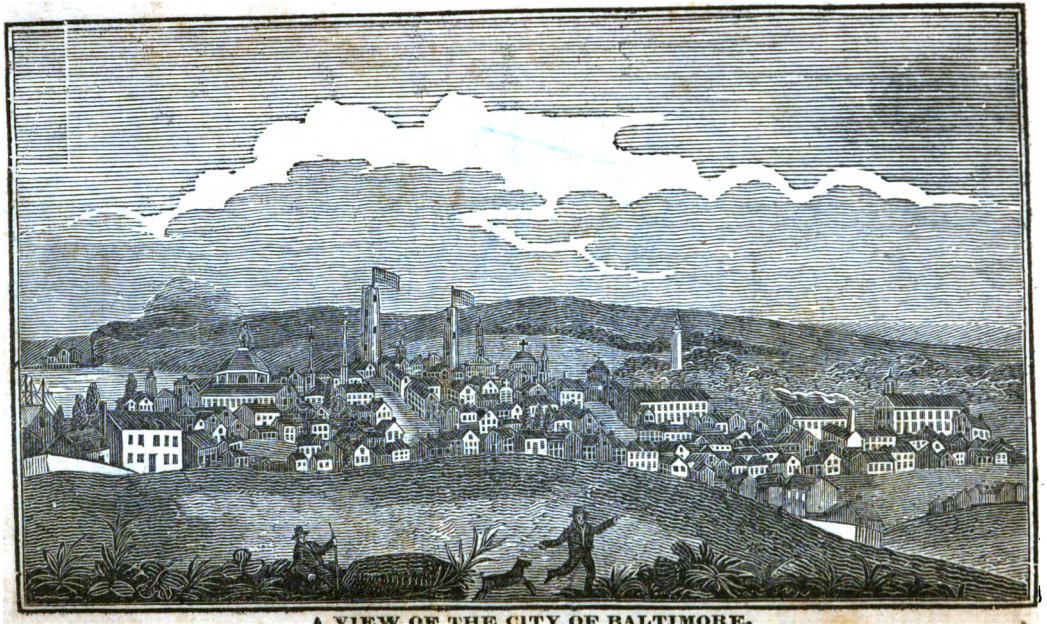

A VIEW OF THE CITY OF BALTIMORE.

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THE

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Entertaining Knowledge.

VOL. III. JULY, 1832. No. 2.

THE CITY OF BALTIMORE.

The city of Baltimore, of which we have been enabled to enrich our present number with a spirited engraving, now contains 81,000 inhabitants, and ranks in point of elegance and size as the third city in the Union. The rapidity of its growth would in any other country be deemed incredible, for it has risen to its present importance in a single century, having been laid out in the year 1729. Here, however, where it is no uncommon occurrence for the individual who felled the first tree and erected the first log cabin in a settlement, to live to see a stately city grow up about him, it, is hardly sufficient to excite remark and is merely regarded as the natural and every day result of public spirit improving a situation more than commonly favorable for manufacturing and commercial enterprise. The situation of Baltimore is admirably calculated for the prosecution of both these species of industry, and it is accordingly the centre of a large capital employed in both pursuits. Built around a spacious and commodious harbor constantly filled with shipping of all nations, and connected by excellent roads, by navigable streams and by splendid internal improvements, with an immense extent of the richest country in the world, it forms a focus for business of every description, and attracts to itself the whole trade of Maryland, a great portion of that of Pennsylvania, with a large share from Ohio and the other western states. Besides these advantages of situation, it possesses water privileges of

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great extent which render it an unrivalled seat for manufacturing establishments requiring hydraulic power. The chemical works are celebrated throughout the United States; its cotton factories are numerous and valuable, and it is the greatest flour market in the world.

Baltimore is well built, the houses being generally of brick, and those recently erected displaying considerable elegance and taste. The newer parts of the city are separated from the old town by a river called Jones' Falls, which is crossed by several beautiful stone bridges. The streets are spacious and well paved; the principal one, called Baltimore or Market street, is a mile long and eighty feet wide, running parallel with the water, and intersected by the other streets at right angles. The inhabitants are blessed with an abundant supply of that first necessary and greatest luxury of life, good water; which is distributed from four public fountains fitted up in a highly ornamental style. Baltimore contains several public institutions, among which we may mention the university of Maryland, whose medical school is one of the most celebrated in the country, and the Catholic college of St. Mary's, a well endowed institution, with a library of 10,000 volumes. There are about 40 places of public worship, of these the Roman Catholic cathedral, St. Paul's church, and the Unitarian church are the most spacious and elegant. The Exchange and the Union Bank are also handsome buildings; the former contains within its walls the Custom House, the United States' Branch Bank, and an extensive coffee house. One of the most interesting objects in Baltimore is the Washington monument, a lofty structure of stone, 50 feet square at the base, and upwards of 160 feet high, on the summit of which the statue of Washington is to be placed. There is also another called the Battle monument, erected to commemorate the attack made on the city during the late war, by the British under General Ross, this is of marble, about thirty-five feet high, and upon its columns are inscribed the names of those who fell in the defence of the city.

The inhabitants of Baltimore, like those of the south-

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ern cities in general, are remarkable for their hospitality and polite attention to strangers, so much so that we have seldom met a traveller who visited their city that did not mention them in terms of gratitude and praise. They are still favored by the residence among them of the only surviving signer of the Declaration of Independence, the venerable Charles Carrol of Carrolton whose manor, a short distance from the city is visited by many a votary of liberty, and who furnishes, in the cheerful contentment, the elegant hospitality, and the active virtues that adorn his age, a noble specimen of the worthies that established our land among the nations, and an invaluable example to those whose proud duty it has been to maintain it there.

CIRCLE OF THE SCIENCES, WITH SUITABLE REFLECTIONS.

ASTRONGMICAL SKETCHES—FIXED STARS.

When we pass from the planetary system to other regions of creation, we have to traverse, in imagination, a space so immense, that it has hitherto baffled all the efforts of science to determine its extent. In these remote and immeasurable spaces, are placed those immense luminous bodies usually denominated the *fixed stars.* The nearest stars are, on good grounds, concluded to be at least *twenty billions* of miles distant from our globe—a distance through which *light* (the swiftest body in nature) could not travel in the space of three years; and which a ball, moving at the rate of 500 miles an hour, would not traverse in four millions five hundred thousand years, or 750 times the period which has elapsed since the Mosaic creation. But how far they may be placed beyond this distance, no astronomer will pretend to determine. The following consideration will prove, to those unacquainted with the mathematical principles of astronomy, that the stars are placed at an immeasurable distance. When they are viewed through a telescope which magnifies objects a thousand times, they appear no larger than to the naked eye; which circumstance shows, that though we

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were placed at the thousandth part of the distance from them at which we now are, they would still appear only as so many shining *points;* for we should still be distant from the nearest of them, twenty thousand millions of miles: or, in other words, were we transported several thousands of millions of miles from the spot we now occupy, though their numbers would appear exceedingly increased, they would appear no larger than they do from our present station; and we behooved to be carried forward thousands of millions of miles further in a long succession, before their disks appeared to expand into large circles, like the moon. Dr. Herschel viewed the stars with telescopes magnifying *six thousand times*, yet they still appeared only as brilliant points, without any sensible disks or increase of diameter. This circumstance incontestably proves the two following things: 1. That the stars are *luminous bodies*, which shine by their own native light; otherwise they could not be perceived at such vast distances. 2. That they are bodies of an immense size, not inferior to the sun; and many of them, it is probable, far exceed that luminary in bulk and splendor.

The stars on account of the difference in their apparent magnitudes, have been distributed into several classes or orders. Those which appear largest are called stars of the *first* magnitude; next to those in lustre, stars of the *second* magnitude, and so on to stars of the *sixth* magnitude, which are the smallest that can be distinguished by the naked eye. Stars of the 7th, 8th, 9th, 10th, &c. magnitudes, which cannot be seen by the naked eye, are distinguished by the name of *telescopic* stars. Not more than a thousand stars can be distinguished by the naked eye, in the clearest winter's night; but by means of the telescope, millions have been discovered. And, as it is probable, that, by far the greater part lie beyond the reach of the best glasses which have been, or ever will be constructed by man—the real number of the stars may be presumed to be beyond all human calculation or conception, and perhaps beyond the grasp of angelic comprehension.

In consequence of recent discoveries, we have now the strongest reason to believe, that all the stars in

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the universe are arranged into clusters, of groups, which astronomers distinguish by the name of NEBULÆ, or STARRY SYSTEMS, each nebulæ consisting of many thousands of stars. The nearest nebulæ is that whitish space or zone which is known by the name of the *Milky Way*, to which our sun is supposed to belong. It consists of many hundreds of thousands of stars. When Dr. Herschel examined this region, with his powerful telescopes, he found a portion of it only fifteen degrees long, and two broad, which contained *fifty thousand* stars large enough to be distinctly counted; and he suspected twice as many more which, for want of sufficient light in his telescope, he saw only now and then. More than two thousand five hundred nebulæ have already been observed; and if each of them contain as many stars as the Milky Way, several hundreds of millions of stars must exist, even within that portion of the heavens which lies open to our observation.

It appears, from numerous observations that *various changes* are occasionally taking place in the regions of the stars. Several stars have appeared for a while in the heavens, and then vanished from the sight. Some stars which were known to the ancients, cannot now be discovered; and stars are now distinctly visible, which were to them unknown. A few stars have gradually increased in brilliancy, while others have been constantly diminishing in lustre. Certain stars, to the number of 15, or upwards, are ascertained to have a periodical increase and decrease of their lustre, sometimes appearing like stars of the 1st or 2d magnitude, sometimes diminishing to the size of the 4th or 5th magnitude, and sometimes altogether disappearing to the naked eye. It also appears, that changes are taking place among the Nebulæ—that several nebulæ are formed by the decomposition of larger nebulæ, and that many nebulæ of this kind are at present detaching themselves from the nebulæ of the Milky Way. These changes seem to indicate, that mighty movements and vast operations are continually going on in the distant regions of creation, under the superintendence of the Sovereign of the Universe, upon a scale of magni-

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tude and grandeur which overwhelms the human understanding.

To explore, more extensively, the region of the starry firmament; to mark the changes that are taking place: to ascertain all the changeable stars; to determine the periodical variations of their light; the revolutions of double and triple stars; and the motions, and other phenomena peculiar to these great bodies, will furnish employment for future enlightened generations: and will perhaps, form a part of the studies and investigations of superior intelligences, in a higher sphere of existence, during an indefinite lapse of ages.

If every one of these immense bodies be a SUN, equal or superior to ours, and encircled with a host of planetary worlds, as we have every reason to conclude, how vast must be the extent of Creation! how numerous the worlds and beings which exist within its boundless range! and how great, beyond all human or angelic conception, must be the Power and Intelligence of that glorious Being, who called this system from nothing into existence, and continually superintends all its movements! The mind is bewildered and confounded when it attempts to dwell on this subject; it feels the narrow limits of its present faculties; it longs for the powers of a seraph, to enable it to take a more expansive flight into those regions which "eye hath not seen;" and, while destitute of these, and chained down to this obscure corner of creation, it can only exclaim, in the language of inspiration, "Who can by searching find out God?—Great is our Lord, and of great power: his understanding is infinite!—Great and marvellous are thy works, Lord God Almighty!—Who can utter the mighty acts of Jehovah, who can show forth *all* his praise!"

(*To be continued.*)

ADVERSITY.

Adversity has ever been considered as the state in which a man most easily becomes acquainted with himself; and this effect it must produce, by withdrawing flatterers, whose business it is to hide our weak-

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nesses from us; or by giving loose to malice, and license to reproach; or at least, by cutting off those pleasures which call us away from meditation on our own conduct, and repressing that pride which too easily persuades us that we merit whatever we enjoy.

HISTORICAL AND PHYSICAL GEOGRAPHY OF THE HOLY LAND—No. VII.

LAKES, SEAS, &c.

Of the LAKES mentioned in the Scriptures, two are particularly worthy of notice; that of Gennesareth, and the lake of Sodom, both of which are termed seas agreeably to the Hebrew phraseology, which gives the name of sea to any large body of water.

The SEA OF GALILEE, through which the Jordan flows, was anciently called the Sea of Chinnereth (Numb. xxxiv. 11,) or Cinneroth (Josh. xii. 3.) from its vicinity to the town of that name; afterwards Genesar (1 Mac. xi. 67.), and in the time of Jesus Christ Genesareth or Gennezareth (Luke v. 1.), from the neighbouring land of the same name (Matt. xiv. 34. Mark xv. 53.); and also the sea of Tiberias (John vi. 1. xxi. 1.), from the contiguous city of Tiberias. The waters of this lake are very sweet, and abound with fish; this circumstance marks the propriety of our Lord's parable of the net cast into the sea (Matt. xiii. 47—49.), near the shore. Pliny states this lake to be sixteen miles in length by six miles in breadth. Dr. D. E. Clarke, by whom it was visited rather more than twenty years since, describes it as longer and finer than the Cumberland and Westmoreland lakes, although it yields in majesty to the stupendous features of Loch Lomond in Scotland: like the Windemere, the lake of Gennezareth is often greatly agitated by winds. (Matt. viii. 23—27.)

The LAKE OR SEA OF SODOM, or the DEAD SEA, is about 72 English miles in length, and nearly 19 in breadth. It was anciently called in the Scriptures the *Sea of the Plain* (Deut. iii. 17. iv. 49.), being situated in a valley with a plain lying to the south of it; the *Salt Sea* (Deut. iii. 17. Josh. xv. 5.), from the ex-

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tremely saline, bitter, and nauseous taste of its waters; the *Salt Sea eastward* (Numb. xxxiv. 3.) and the *East Sea* (Ezek. xlvii. 18. Joel ii. 20.) By Josephus and other writers it is called the lake *Asphaltites*, from the abundance of bitumen found in it; and also the *Dead Sea*, from ancient traditions, erroneously though generally received, that no living creature can exist in its stagnant and sulphureous waters. Here formerly stood the cities of Sodom and Gomorrah, which, with two other cities of the plain, were consumed by fire from heaven: to this destruction there are numerous allusions in the Scriptures.

Beside the preceding rivers and lakes, the Scriptures mention several *Fountains* and *Wells:* of these the most remarkable are the fountain or pool of Siloam and Jacob's Well.

Siloam was a fountain under the walls of Jerusalem, east, between the city and the brook Kedron: it is supposed to be the same as the fountain En-Rogel, or the Fuller's Fountain. (Josh. xv. 7. and xviii. 16. 2 Sam. xvii. 17. and 1 Kings i. 9.) "The spring issues from a rock, and runs in a silent stream, according to the testimony of Jeremiah."

Jacob's Well or fountain is situated at a small distance from Sichem or Shechem, also called Sychar, and at present Napolose: it was the residence of Jacob before his sons slew the Shechemites. It has been visited by pilgrims of all ages, but especially by Christians, to whom it has become an object of veneration from the memorable discourse of our Saviour with the woman of Samaria. (John iv. 5—30.)

In our own time it is the custom for the oriental women, particularly those who are unmarried, to fetch water from the wells, in the mornings and evenings; at which times they go forth adorned with their trinkets. This will account for Rebecca's fetching water (Gen. xxiv. 15,) and will farther prove that there was no impropriety in Abraham's servant presenting her with more valuable jewels than those she had before on her hands. (Gen. xxiv. 22—47.)

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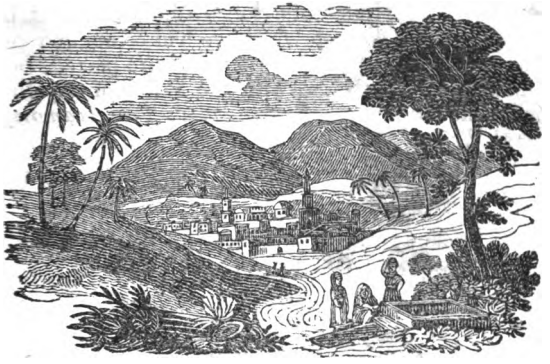

VILLAGE IN THE VALLEY OF ADJELOON.

We halted at the house of a christian Arab at Adjeloon; and as our host, Yakoobe, had come with us from Curfr Injey thus far, the priest of the village called together all the christians who were in the neighbourhood to meet us. It appeared that at Curfr Injey there were only four christians among all its inhaitants, at Anjerah ten, at Ain-Jerrah fifteen, and at this place, Adjeloon, twenty. They have a small room here which is appropriated to worship, and on Sundays and feast days they have the occasional visits of the other villagers to add to their congregation. There are about 400 inhabitants in each of the three former villages, and 200 in this, which, however, must have been once the largest place of the whole, judging from the extent of the ruined dwellings around it, and particularly on its northern side.

We left Adjeloon about ten o'clock, and after ascending a narrow valley to the northward, inclining easterly, entered into a fine forest of sinjan trees, where, after an hour's journeying, we passed over a spot covered with the vestiges of former buildings, walls, and streets, though now entirely overgrown with shrubs and trees. This spot is called by the people of the country Belled-el-Yosh, or the country or place of Joshua, probably referring to that leader's bidding the sun to stand still upon Gibeon, and the moon in the valley of Aja-

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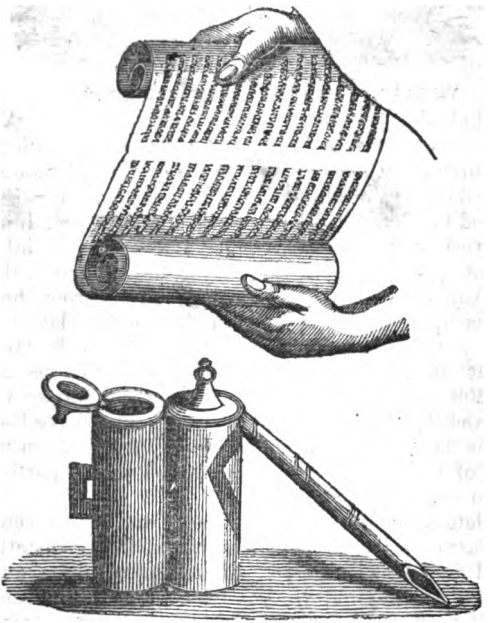
lon (*Josh.* x. 12;) this valley of "Adjeloon," as it is now pronounced, through which we had come, and on the skirts of which the ruins spoken of are placed, being undoubtedly the same with the valley of Ajalon named in the scriptures.—*Buckingham's Travels among the Arab Tribes.*

FORM OF ANCIENT BOOKS AND SCROLLS, PARTICULARLY THOSE MENTIONED IN THE SCRIPTURE.



We present our readers with the form of an ancient book, as held with both hands by a young man, who is supposed to be reading it with great earnestness. It is probably meant for some serious treatise. The form of the page, and the direction of the separating column

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are distinctly marked, and clearly show that it was read down the narrow way of the roll, one end of the book being rolled inward and the other outward.

Several sorts of materials were anciently used in making books; plates of lead and copper, the barks of trees, bricks, stone, and even wood, were the first materials employed to engrave those things upon, which men desired to transmit to posterity. Josephus the Jewish Historian, speaks of two columns, one of brick, on which the Children of Seth wrote, or engraved their inventions and astronomical discoveries. Porphyry mentions some pillars preserved in Crete, on which the sacrifices of the Corybanites were recorded. Hesiod's works were originally written upon tables of lead; the Laws of Solon upon wooden planks; and the Ten Commandments delivered to Moses, upon stone. Tables of boxwood and ivory were common among the ancients; and their wooden tablets were frequently covered with wax, that they might easily write, and if they pleased afterwards erase what they had written. The leaves of the palm-tree were afterwards used instead of wooden tablets, together with the finest and thinnest part of the bark of trees, such as the lime, the ash, the maple, and the elm; and as these barks were rolled up in order to be removed with greater ease, the rolls were called *volumina*, or volumes, a name afterwards generally applied to rolls of paper or parchment.

The other two figures represent an ancient inkstand and pen. The inkstand consists of two parts, one for red, and the other for black ink; one of which is shut, and the other open. The pen is a reed of considerable length and magnitude. Whether the bands round it are merely joints of the reed, or something added to strengthen it, is not certain, but probably the latter; and the reader should be informed, that these representations are copied from some ancient pictures dug out of the ruins of Herculaneum, a once famous city of Italy, which was destroyed by an eruption of Mount Vesuvius, A. D. 79.

The hypocrite shows the excellency of virtue by the necessity he thinks himself under of *seeming to be virtuous.*

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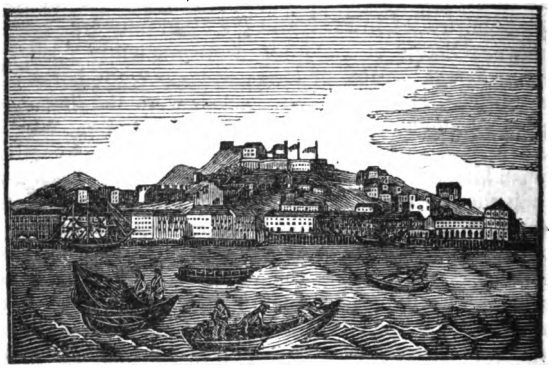
TOPOGRAPHICAL SKETCHES.—No. II.



LISBON.

This city, the capital of the kingdom of Portugal and the chief residence of the royal house of Braganza, when seen from the harbor is one of the most magnificent objects that can be imagined, situated near the mouth of the Tagus, that noble river

"Which Poets vainly pave with sands of gold,"

embellishing its banks for miles with thousands of romantic villas, and crowning with palaces and convents, intermixed with evergreen oaks, and cork, and orange trees, the summits of the seven hills on which, like ancient Rome, it is erected. Lisbon exhibits from the sea an appearance truly superb. But any expectations of magnificence or even of cleanliness and comfort which the traveller may have founded on a distant view, are doomed to meet with a speedy disappointment;

"For whoso entereth within this town
That, sheening far, celestial seems to be,
Disconsolate will wander up and down,
'Mid many things unsightly to strange ee;
For hut and palace show like filthily:—

so sang Childe Harold; and all who, like him, have enjoyed the prospect of this city from the harbor have spoken with rapture of its beauty, as all who have en-

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tered it have expressed the same disgust at its filth and the meanness of its narrow and ill paved streets. Pryse Gordon, in his personal memoirs, even goes so far as to call it the "vilest and filthiest dog kennel in the christian world"—But bad as the condition of Lisbon is in this respect, even now, it is much superior to what it formerly was, the greater part of the city having been rebuilt since the year 1755, when it was reduced, by the great earthquake, to a heap of ruins. The western side in particular, which suffered most severely, has been greatly improved, the streets being straighter and more regularly laid out; but the eastern part preserves its original gloomy aspect, with the same dark and crooked streets and the same old fashioned heavy buildings, six and seven stories high, looking like prisons, with their unsightly balconies and massive iron lattices. There are in Lisbon some handsome squares; the Rossio, where the *autos da fe* were formerly held is the finest; this square forms the point of union for ten different streets and is surrounded by spacious buildings, among which is the new palace of the inquisition. The city is supplied with water by a noble aqueduct 7 miles in length, which crosses the valley of Alcantara on 35 marble arches: this structure withstood the shock of the earthquake, although it is so lofty that a ship of the line might pass under its centre arch with ease. The harbor of Lisbon is one of the finest in the world, it has water for the largest ships and abundant room for 10,000 sail. Among a people degraded by superstition like the Portuguese, science and literature as might be expected, are almost totally neglected; and accordingly although there are several establishments for their cultivation in Lisbon, they are poorly endowed and worse attended. The charitable institutions are more worthy of our notice; among these are the great hospital which is obliged to receive all persons without distinction of degree, nation or religion; St Joseph's hospital which will accomodate 16,000 patients, the foundling hospital where 1600 children are annually received, and the hospital at the village of Belem for decayed gentleman who have served the King.

Lisbon has been since the reign of King Emmanuel, the capital of the kingdom and the centre of its com-

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merce, and of course it derived immediate benefit from the splendid discoveries which opened to the countrymen of the early Portuguese navigators such incalculable sources of wealth. These discoveries it is well known were secured to the crown by a bull of donation from the famous Pope Alexander VI. in requital of which favor the successive monarchs of Portugal have devoted a great part of their riches to the service of the church, by embellishing their capital with convents, chapels and other religious edifices. Before the earthquake the number of establishmets for the accommodation of monks and nuns amounted to fifty, and there were besides a great many chapels and churches of extraordinary magnificence. All of these were destroyed. There are still, however, several beautiful churches, some of which are by far the finest buildings erected since the earthquake. The cathredal or Patriarchal church is a vast edifice in the Gothic style, rather heavy and clumsy in its architecture, but splendidly adorned within, and containing many treasures of inestimable value. It is erected in an elevated situation and commands a fine view of the surrounding country! The ecclesiastical jurisdiction of the whole city is lodged in the hands of a Patriarch who was appointed in 1717, and who is assisted in his duties by an archbishop. The civil government is lodged in a council composed of a President, six counsellors and several inferior officers; but these are mere puppets in the hand of the King, who in his turn is managed by the priests, and the whole system is in fact an ecclesiastical despotism of the worst description. The people are said to manifest in their deportment all the vices to be expected from men groaning under such a heavy rule, and to be treacherous, cowardly and cruel. And such is the ignorance in which they are kept that it is no uncommon thing even for Ladies of the better order to be unable to read. May we not hope that the present crisis in the affairs of Portugal may lead to a happy change and that the light of liberty now beginning to burst with mid-day splendor in other parts of the old world may shed on her enthralled sons some of its beneficent rays. The present population of Lisbon is about 200,000

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THE PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES;

ILLUSTRATED BY ANECDOTES.

Self-educated men.—Ferguson.—Influence of accident in directing pursuits.

(*Continued from page* 5.)

From this person Ferguson received instructions in Decimal Fractions and Algebra, having already made himself master of Vulgar Arithmetic, by the assistance of books. Just as he was about, however, to begin Geometry, Cantley left his place for another in the establishment of the Earl of Fife, and his pupil thereupon determined to return home to his father.

Cantley, on parting with him, had made him a present of a copy of Gordon's Geographical Grammar. The book contains a description of an artificial globe, which is not however, illustrated by any figure. Nevertheless, "from this description," says Ferguson, "I made a globe in three weeks at my father's, having turned the ball thereof out of a piece of wood; which ball I covered with paper, and delineated a map of the world upon it; made the meridian ring and horizon of wood, covered them with paper, and graduated them; and was happy to find that by my globe (which was the first I ever saw) I could solve the problems."

For some time after this, he was very unfortunate. Finding that it would not do to remain idle at home, he engaged in the service of a miller in the neighbourhood, who, feeling probably that he could trust to the honesty and capacity of his servant, soon began to spend all his own time in the alehouse, and to leave poor Ferguson at home, not only with every thing to do, but with very frequently nothing to eat. A little oatmeal, mixed with cold water, was often, he tells us, all he was allowed. Yet in this situation he remained a year, and then returned to his father's very much the weaker for his fasting. His next master was a Dr. Young, who having induced him to enter his service by a promise to instruct him in medicine, not only broke his engagement as to this point, but used him in other respects so tyrannically, that, although engaged for half a year, he found he could not remain beyond the first quarter, at the expiration of which, accordingly, he came away without receiving any wages, having

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"wrought for the last fortnight," says he, "as much as possible with one hand and arm, when I could not lift the other from my side." This was in consequence of a severe hurt he had received, which the Doctor was too busy to look to, and by which he was confined to his bed for two months after his return home.

Reduced as he was, however, by exhaustion and actual pain, he could not be idle. "In order," says he, "to amuse myself in this low state, I made a wooden clock, the frame of which was also of wood, and it kept time pretty well. The bell on which the hammer struck the hours was the neck of a broken bottle." A short time after this, when he had recovered his health, he gave a still more extraordinary proof of his ingenuity, and the fertility of his resources for mechanical invention, by actually constructing a timepiece or watch, moved by a spring. But we must allow him to give the history of this matter in his own words:—

"Having then," he says, "no idea how any timepiece could go but by a weight and a line, I wondered how a watch could go in all positions; and was sorry that I had never thought of asking Mr. Cantley, who could very easily have informed me. But happening one day to see a gentleman ride by my father's house (which was close by a public road), I asked him what o'clock it then was? He looked at his watch, and told me. As he did that with so much good-nature, I begged of him to show me the inside of his watch; and though he was an entire stranger, he immediately opened the watch, and put it into my hands. I saw the spring box, with part of the chain round it; and asked him what it was that made the box turn round? He told me that it was turned round by a steel spring within it. Having then never seen any other spring than that of my father's gun-lock, I asked how a spring within a box could turn the box so often round as to wind all the chain upon it? He answered, that the spring was long and thin; that one end of it was fastened to the axis of the box, and the other end to the inside of the box; that the axis was fixed, and the box was loose upon it. I told him that I did not yet thoroughly understand the matter. 'Well, my lad,'

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says he, 'take a long, thin piece of whalebone; hold one end of it fast between your finger and thumb and wind it round your finger, it will then endeavour to unwind itself; and if you fix the other end of it to the inside of a small hoop, and leave it to itself, it will turn the hoop round and round, and wind up a thread tied to the outside of the hoop.' I thanked the gentleman, and told him that I understood the thing very well. I then tried to make a watch with wooden wheels, and made the spring of whalebone; but found that I could not make the wheel go when the balance was put on, because the teeth of the wheels were rather too weak to bear the force of a spring sufficient to move the balance; although the wheels would run fast enough when the balance was taken off. I inclosed the whole in a wooden case, very little bigger than a breakfast tea-cup; but a clumsy neighbor one day looking at my watch, happened to let it fall, and turning hastily about to pick it up, set his foot upon it, and crushed it all to pieces; which so provoked my father, that he was almost ready to beat the man, and discouraged me so much, that I never attempted to make such another machine again, especially as I was thoroughly convinced I could never make one that would be of any real use."

What a vivid picture is this of an ingenuous mind thirsting for knowledge! and who is there, too, that does not envy the pleasure that must have been felt by the courteous and intelligent stranger by whom the young mechanician was carried over his first great difficulty, if he ever chanced to learn how greatly his unknown questioner had profited from their brief interview! That stranger might probably have read the above narrative, as given to the world by Ferguson, after the talents which this little incident probably contributed to develope had raised him from his obscurity to a distinguished place among the philosophers of his age; and if he did know this, he must have felt that encouragement in well-doing which a benevolent man may always gather, either from the positive effects of acts of kindness upon others, or their influence upon his own heart. Civility, charity, generosity, may sometimes meet an ill return, but one person *must* be benefited by

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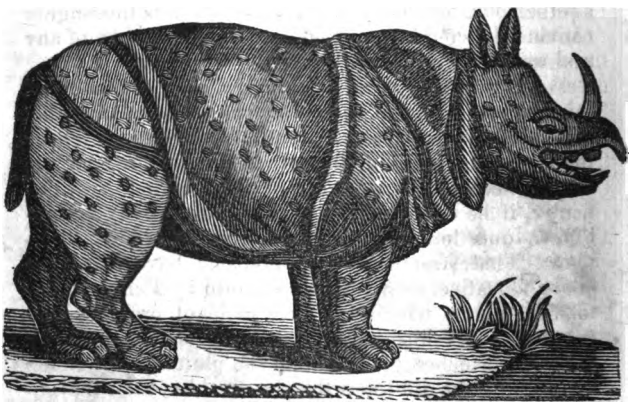
their exercise; the kind heart has its own abundant reward, whatever be the gratitude of others. The case of Ferguson shows that the seed does not always fall on stony ground. It may appear somewhat absurd to dwell upon the benefit of a slight civility which cost, at most, but a few minutes of attention; but it is really important that those who are easy in the world—who have all the advantages of wealth and knowledge at their command—should feel of how much value is the slightest encouragement and assistance to those who are toiling up the steep of emulation. Too often "the scoff of pride" is superadded to the "bar of poverty;" and thus it is that many a one of the best talents and the most generous feelings

"Has sunk into the grave unpitied and unknown,"

because the wealthy and powerful have never understood the value of a helping hand to him who is struggling with fortune.

DEPARTMENT OF NATURAL HISTORY.



THE UNICORN.

In investigating the natural history of the scriptures we find it difficult to identify some of the animals there described with any of those which are now known

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upon the earth. Behemoth and leviathan "hugest of living creatures," have afforded employment to a host of learned men, some of whom, especially the Jewish Rabbins and early Christian writers, have indulged in speculations sufficiently fanciful, and furnished amusing examples of the extravagance into which the gravest minds will run when judgment surrenders the reins to imagination. Of all the animals whose names we meet in holy writ there is none about which a greater variety of opinions has been entertained than the unicorn. Numerous animals have, each in turn, been taken for it, and the claims of each have been supported by able advocates. It would serve no useful purpose, nor would our limits permit us to detail the arguments by which the various opinions in favor of the wild goat, the wild bull, the wild ass, the antelope, the deer and the rhinoceros have been sustained; suffice it to say that the last of these is now generally admitted to combine all the qualities assigned to the unicorn in the different passages in which that animal is mentioned in the Bible. The chief characteristics of the rhinoceros, says an eminent naturalist, "are rage, untameableness and strength," all which properties we will find the unicorn to possess. To the rage or ferocity of the animal we find the following testimony in Isaiah, "and the unicorns shall come down with them, and the bullocks with the bulls; and their land shall be soaked with blood, and their dust made fat with fatness." His untameable disposition is thus alluded to by Job: "Will the unicorn be willing to serve thee, or abide by thy crib? canst thou bind the unicorn with his band in the furrow? or will he harrow the valleys after thee? wilt thou trust him because his strength is great? or wilt thou leave thy labor to him? wilt thou believe him that he will bring home thy seed, and gather it into thy barn?"—In another place his strength is described as so great that the strength of the Lord is likened to it. Thus in the reply of Balaam to Balak when the terrified king besought him to curse the invading armies of Israel, we are told, "God brought them out of Egypt, he hath as it were the strength of a unicorn."

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A remarkable peculiarity in the rhinoceros is that it possesses a single horn which is situated upon the front of the head in an erect posture, therein differing from other animals whose horns project in a direction more or less approaching to parallelism with the bone. This peculiarity is alluded to in the Bible. "My horn shalt thou exalt like the horn of a unicorn." But there is a species of rhinoceros distinguished by the possession of two horns, and it is evident from the following passage that the unicorn also was sometimes found with more horns than one; "His horns are like the horns of a unicorn,"

The name of the rhinoceros is a Greek word, yet we have reason to believe that the animal was totally unknown to the ancient Greeks, as no mention of it occurs in Aristotle, and it was not described by any Greek before the time of Strabo. It would appear, however, from the description, that the oryx or Indian ass of Aristotle was identical with the rhinoceros; his informers, for he never saw the animal himself, comparing it to the ass from the clumsiness of its shape. It probably did not inhabit that part of India into which Alexander penetrated, as it was nearly 300 years after, that Pompey first introduced the animal into Europe. From his time until that of Heliogabalus they were frequently exhibited in the Roman spectacles; we find the figure of the rhinoceros among the animals of the Prænestine pavement, and we are told that Augustus introduced them into his show in his triumph over Cleopatra. They have frequently been transported to Europe in modern times, but were scarcely better known than the fabled unicorn of the poet and the painter, until some arrived in London in 1739, the careful examination of which discovered and corrected many prevalent errors and misconceptions. They have been recently exhibited in the caravans in our own country and are so generally known that a minute description may be deemed superfluous. The rhinoceros is usually about twelve feet long from the tip of the nose to the insertion of the tail; from six to seven feet high; and the circumference of its body is nearly equal to its length. It is therefore equal to the elephant in bulk,

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and the reason of its appearing so much smaller to the eye than that animal, is that its legs are much shorter. But for its horn its head would very much resemble that of a hog. Its skin is naked, rough, knotty and lying upon the body in folds in a very peculiar manner; if we run the fingers under one of these folds it feels like a board half an inch thick, but between the folds the skin is as smooth and soft as silk. The skin of the folds is of a brown color and is so hard that it will turn the edge of a scimitar. They do not congregate like the elephants, but lead a solitary savage life and are very hard to hunt, for though harmless except when attacked they are then furious and formidable; sabres, lances and javelins have no effect upon them, and their skin will even resist a musket ball, the only penetrable parts being the ears and the spot immediately below the eyes. They are frequently killed while asleep for the sake of the flesh which is much relished by the Indians, Africans and Hottentots.

Bruce informs us that the Rhinoceros lives entirely upon trees, these he first strips and then placing his snout as low in the trunk as he finds the horn will enter, he rips up the body of the tree and reduces it to thin pieces, he then takes as much of it as he can in his monstrous jaws and twists it with as much ease as an ox would do a root of celery. His horn is also a formidable weapon in war; the elephant, the boar and the buffalo are obliged to strike transversely, with their weapons; but the Rhinoceros, from the situation of his horn, employs all his force with every blow, so that the tiger will more willingly attack any other animal of the forest than one whose strength is so justly employed. Indeed there is no force which this terrible animal need apprehend; defended on every side by a thick horny hide which the claws of the lion or the tiger are unable to pierce, and armed before with a weapon that even the elephant does not choose to oppose. Travellers have assured us that the elephant is often found dead in the forests, pierced with the horn of a Rhinoceros.

July 1, 1832.

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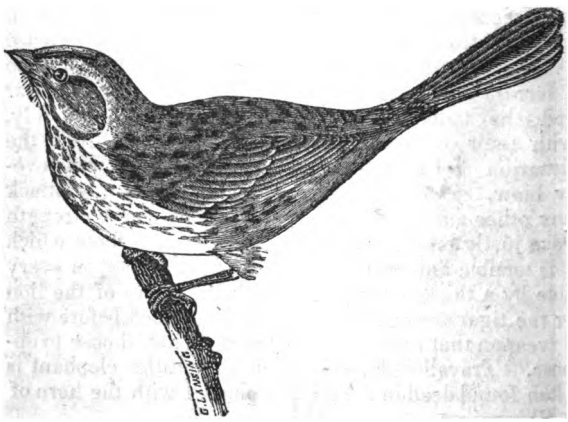
THE SONG SPARROW AND THE BAY-WINGED BUNTING.

The house sparrow of Europe has an upopular character. In some places, a price has been offered for its extirpation, and BUFFON *sums up* in the following style: "It is extremely destructive, its plumage is entirely useless, its flesh indifferent food, its notes grating to the ear, and its familiarity and petulance disgusting."

No share of this odium, however, ought to be extended to *American* sparrows, for I know of no birds more deserving of our regard and protection. Their interests and ours never interfere; indeed most of their labors conduce to our benefit; and their music though overpowered by the stronger notes of *the thrush* and of *the robin*, is always pleasing when it can be heard without interruption.

Of this family, the song sparrow is decidedly the finest. He visits us earlier in Spring than any other migratory songster, and sings to us for several weeks almost without a competitor. The same notes are repeated many times in succession; he then changes and repeats others in the same manner.



In the above figure, a diminished copy of WILSON'S, *the dark spot* on the breast, which so frequently oc-

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curs, is not represented; neither does the figure represent it in the attitude of song.

"Of all our sparrows, says WILSON, this is the most numerous, the most generally diffused over the United States, and by far the earliest, sweetest, and most lasting songster.—It is the first singing bird in Spring, except the black capt Titmouse, taking precedence even of the *Pewee and Blue Bird.* Its song continues occasionally during the whole summer and fall; and is sometimes heard (near Philadelphia,) even in the depth of winter. The notes, or chant, are short but very sweet, resembling the beginning of the Canary's song, and frequently repeated, generally from the branches of a bush or small tree, where it sits chanting for an hour together. It is fond of frequenting the borders of rivers, meadows, swamps, and such-like watery places; and if wounded, and unable to fly, will readily take to the water, and swim with considerable rapidity. "The great cypress swamps of the Southern States appear to be the grand winter rendezvous of almost all our sparrows"

THE BAY-WINGED BUNTING

resembles a sparrow both in manners and appearance. When flying it is readily known by two outside white feathers in its tail. Though not gregarious, they appear in considerable numbers along the road, and we suspect they are fond of rolling in the dust. The notes are rather louder but less musical than the song sparrow; and in the morning and evening their vivacity seems to be increased by the emulation of numbers.

"This bird says WILSON delights in frequenting grass and clover fields, perches on the tops of the fences, singing from the middle of April to the beginning of July with a clear and pleasant note, in which particular it far excels its European relation. They frequent the middle of fields more than hedges; run along the ground like a lark, which they also resemble in the great breadth of their wings; they are timid birds; and rarely approach the farm house."

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THE BREAD FRUIT—*Artocarpus incisa.*

The bread-fruit, originally found in the south-eastern parts of Asia and the islands of the Pacific, though now introduced into the tropical parts of the western continent, and the West India islands, is one of the most interesting, as well as singular productions of the vegetable kingdom. There are two species of it: the bread fruit properly so called (*Artocarpus incisa,*) with the leaves deeply gashed or divided at the sides, which grows chiefly in the islands; and the Jack fruit, or Jaca tree (*Artocarpus integrifolia*), with the leaves entire which grows chiefly on the main land of Asia. The latter has been already noticed.

The bread-fruit is a beautiful as well as a useful tree: the trunk rises to the height of about forty feet, and, in a full grown tree, is from a foot to fifteen inches in diameter; the bark is ash-coloured, full of little chinks, and covered by small knobs; the inner bark is fibrous, and used in the manufacture of a sort of cloth; and the wood is smooth, soft, and of a yellow color. The branches come out in a horizontal manner, the lowest ones about ten or twelve feet from the ground; and they become shorter and shorter as they are nearer the top; the leaves are divided into seven or nine lobes, about eighteen inches or two

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feet long, and are of a lively green. The tree bears male and female flowers, the males among the upper leaves, and the females at the extremities of the twigs. When full grown, the fruit is about nine inches long, heart-shaped, of a greenish color, and marked with hexagonal warts, formed into facets. The pulp is white, partly farinaceous and partly fibrous; but when quite ripe, it becomes yellow and juicy. The whole tree, when in a green state, abounds with a viscid milky juice, of so tenacious a nature as to be drawn out in threads.

In the island of Otaheite and other places, where the bread-fruit forms the chief support of the people, there are, as is the case with cultivated vegetables in all countries, many varieties; only two, however, are very different from each other—that which contains seeds in the fruit, and that which contains none. The variety with seeds is much inferior to the other, being more fibrous, containing less farina, and not so pleasant to the taste; it is, therefore, not cultivated, though in cases of need, it is roasted and eaten. Whether the seedless sort has been produced wholly by cultivation it is not easy, and would not be of much importance, to ascertain: it is the one cultivated in the South Sea islands; it was originally found only there; and the tree was not in much repute till these islands were discovered.

The bread-fruit continues productive for about eight months of the year: such is its abundance, that two or three trees will suffice for a man's yearly supply, a store being made into a sour paste, called *mahe* in the islands, which is eaten during the unproductive season. The planting of the seedless variety is now saved, as the creeping roots send up suckers which soon grow to trees. When the fruit is roasted till the outside is charred, the pulp has a consitency not very unlike that of wheaten bread; and the taste is intermediate between that of bread and roasted chesnuts. It is said to be very nourishing, and is prepared in various ways. The timber of the bread-fruit, though soft, is found useful in the construction of houses and boats; the male flowers, dried, serve for tinder; the juice answers for bird-lime and glue; the leaves for packing and for

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towels; and the inner bark, beaten together, makes one species of the South Sea cloth.

The earliest account of the bread-fruit is by Captain Dampier, in 1688. "The bread-fruit," says this navigator, "grows on a large tree, as big and high as our largest apple trees; it hath a spreading head, full of branches, and dark leaves. The fruit grows on the boughs like apples; it is as big as a penny loaf, when wheat is at five shillings the bushel; it is of a round shape, and hath a thick tough rind. When the fruit is ripe, it is yellow and soft, and the taste is sweet and pleasant. The natives of Guam use it for bread. They gather it when full grown, while it is green and hard; then they bake it in an oven which scorcheth the rind, and maketh it black; but they scrape off the outside black crust, and there remains a tender thin crust, and the inside is soft, tender, and white, like the crumb of a penny loaf. There is *neither seed nor stone* in the inside, but all of a pure substance, like bread. It must be eaten new, for, if it be kept above twenty-four hours, it grows harsh and choky, but it is very pleasant before it is too stale. This fruit lasts in season *eight months* in the year, during which the natives eat no other sort of bread kind. I did never see of this fruit anywhere but here. The natives told us, that there is plenty of this fruit growing on the rest of the Ladrone Islands; and I did never hear of it anywhere else."

The scientific men who accompanied Captain Cook in his voyages, came home with the most enthusiastic ideas of the bread-fruit. Dr. Solander calls it "the most useful vegetable in the world," and urges that no expense should be spared in its cultivation. The mere idea of bread, the most valuable food of man, growing spontaneously, was doubtless calculated to excite attention—almost, perhaps, as strongly as the subsequent description of a poet:—

"The bread-tree, which, without the ploughshare, yields
The unreap'd harvest of unfurrow'd fields,
And bakes its unadulterated loaves
Without a furnace in unpurchased groves
And flings off famine from its fertile breast,
A priceless market for the gathering guest."

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A tree, of the value and easy culture of which so very encouraging accounts were given, could not but attract the notice of the public generally, and more especially of those colonists of Great Britain who lived in a climate warm enough for its cultivation. An application to be furnished with plants of the bread-fruit tree was accordingly made to his late Majesty by the planters and others interested in the West Indies, and it met with a favorable reception. The Bounty, a vessel of about two hundred and fifteen tons burthen, was fitted up for a voyage to Otaheite. Lieutenant (afterwards Admiral) Bligh, who had accompanied Cook on his last voyage, and shown himself an officer of great talents, enterprise, and bravery, was appointed to the command. In addition to the crew of the vessel, two men were appointed, at the recommendation of Sir Joseph Banks, to take immediate charge of the procuring, shipping and tending of the plants.

The Bounty was skilfully fitted up for her intended purpose. A large cabin between decks, in midships, was prepared for the reception of the plants. This had two large skylights on the top for light; three scuttles on each side for ventilation of air, and a double bottom; an upper one of timber on which to place the pots and tubs containing the plants, which was drilled full of holes to allow escape to the superfluous water which might have injured them by stagnation—and a leaden one upon the lower deck, in which the water that ran through the other was collected, and from which it was conducted by a leaden pipe at each corner, into casks below for future use.

Thus prepared, the vessel put to sea about the middle of November, 1787, but was beat about and baffled by contrary winds, so that the voyage was not commenced till the 23d of December. The instructions given to Lieutenant Bligh were full and explicit. He was to resort to those places in the Society Isles where Captain Cook had stated that the bread-fruit tree was to be found in the greatest luxuriance, and there procure as many plants as the vessel could carry; after which he was to proceed with them to the West Indies with all possible expedition.

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The commander sailed first for Teneriffe, and thence for the south of America, intending to enter the Pacific by the passage of Cape Horn. But the storms of that inhospitable region beat him back; and he was forced to bear away for the Cape of Good Hope, and reach the Society Islands on the side of New Holland. This voyage, which had occupied ten months, terminated on the 25th of October, by the arrival of the Bounty at Otaheite.

No time was lost in putting the instructions into execution. The young shoots that sprung from the lateral roots of the bread-fruit trees were taken up, with balls of earth, where the soil was moist; and this operation was continued till they were in possession of one thousand and fifteen live plants, secured in seven hundred and seventy-four pots, thirty-nine tubs, and twenty-four boxes. To complete this cargo took them till the 3d of April, 1789; and Bligh sailed on the 4th, passing from Otaheite through the group of islands, and bidding adieu to the natives with whom he and his crew had been on the most friendly terms during their stay.

Hitherto there had been no perils to contend with but those of the sea; but when four and twenty days had elapsed, and they were, of course, far from any land, a new scene took place, which frustrated for a time the bounty of the government and the skill of the commander. Under the cloak of fidelity, a mutiny had been forming of a very determined and extensive nature; and so well had the mutineers disguised their intentions, that not one but those who were in the plot had the slightest suspicion of it.

The known bravery of Lieutenant Bligh made the mutineers afraid to attack him awake; and so, on the morning of the 28th of April, he was seized while asleep in his bed, by a band of armed traitors, and hurried upon deck in his shirt; and, on coming there he found the master, the gunner, one of the master's mates, and Nelson the botanist, who had been with him under Cook, confined in the fore hatchway, and guarded by sentinels. The launch was hoisted; and such individuals as the mutineers did not like, were ordered to quit the ship, and forced if they refused or hesitated.

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Eighteen individuals out of the forty-six remained true to the commander; and one of them, Mr. Samuel, the clerk, contrived to save Mr. Bligh's commission and journals; but he failed in attempting to procure Bligh's surveys, drawings, and remarks during fifteen years, which were exceedingly valuable, and the time-keeper. Four of the men, who kept their allegiance, were detained by the mutineers contrary to their wishes. The cause of this singular mutiny, for which none of the usual motives could very well account, could not with certainty be known; but it was generally supposed that the instigator was Mr. Christian, one of the master's mates. Bligh himself says, in his most interesting account of this voyage and mutiny, "It will naturally be asked what could be the cause of this revolt? In answer, I can only conjecture that the mutineers had flattered themselves with the hope of a happier life among the Otaheitans than they could possibly enjoy in England."

Thus, after they had made certain of the successful termination of an enterprise which was looked upon with a great deal of interest, both in a scientific and an economical point of view, Bligh was disappointed—and he and his faithful, associates were sent adrift upon the wide ocean, in an open boat, with only an hundred and fifty pounds of bread, a few pieces of pork, a little wine and rum, a quadrant and compass, and a few other implements of navigation. But they were undaunted, and they were skilful; and though they had hard weather to contend with, they reached Tofoa, one of the Friendly Islands. But as the people there were as treacherous, though not quite so successful in their treachery, as their former shipmates, they again put to sea, and stood for New Holland, which they reached in safety; rested for a little, and got a supply of provisions. From New Holland they again sailed in the direction of the Eastern Archipelago; and, after suffering the greatest fatigue, being exposed to the full action and vicissitudes of the elements, and forced for some time to bear famine, they reached the Dutch settlement of Coupang, in the island of Timor, without the loss of one individual by disease; though they had traversed

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at least five thousand miles of sea. Nay, so ardent was Bligh as a seaman, that, amid all those perils, he was occupied in making some very valuable observations.

The Dutch governor of Coupang showed them every attention; and, from the care that was taken of them, twelve were enabled to return to England. Though the adventure had failed, every body was disposed to bestow all praise on the adventurer; and he was promoted to the rank of captain, and appointed to the command of his Majesty's ship Providence, in order to repeat the voyage.

The Providence, with the Assistant, a small ship in company, sailed on the 3d of August, 1791. His instructions were to procure the bread-fruit trees for the West Indies, and, on his return, to examine the passage between the north of New Holland and New Guinea—which, in his former voyage in the Bounty, he had been the first to navigate.

On the 9th of April, 1792, they reached Otaheite; and by the 17th of July, they were ready to leave the island, having on board twelve hundred and eighty-one tubs and pots of plants, all in the finest condition. There was no mutiny on this voyage; but the passage between New Holland and New Guinea was dangerous; and it was the 2d of October before the captain reached his old friends at Coupang. He remained there for a week, replacing with plants from that island those that had died on the voyage; and then he came to the Atlantic by the Cape of Good Hope, which he contrived to pass so closely as never to have a lower temperature than sixty-one degrees of Fahrenheit.

On the 17th of September, he anchored at St. Helena, collected there a number of trees, and among others the akee; and, leaving twenty-three bread fruits, and some other valuable plants, he sailed, and reached St. Vincent on the 23d of January, 1793—where he left, with Dr. Anderson, the superintendent of the Botanical Garden, three hundred and thirty three bread fruit trees, and two hundred and eleven fruit trees of other kinds, receiving at the same time nearly five hundred tropical plants for the Botanical Garden at

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Kew. From St. Vincent, Captain Bligh sailed for Jamaica, where he left three hundred and forty-seven bread-fruits, and two hundred and seventy-six others, which were a selection of all the finest fruits of the east. Some of the plants were also left on the island of Grand Cayman; and the ships finally came to the Downs on the 2d of August, 1793.

But, after all the peril, hardship, and expense thus incurred the bread-fruit tree has not, hitherto at least, answered the expectations that were entertained. The banana is more easily and cheaply cultivated, comes into bearing much sooner after being planted, bears more abundantly, and is better relished by the negroes. The mode of propagating the bread-fruit is not, indeed; difficult; for the planter has only to lay bare one of the roots, and mound it with a spade, and in a short space a shoot comes up, which is soon fit for removal

POETRY & MUSIC.

SABBATH DAYS.

Types of eternal rest—fair buds of bliss,
In heavenly flowers unfolding week by week;
The next world's gladness imag'd forth, in this—
Days of whose worth the Christian heart can speak.
Eternity in time—the steps by which
We climb to future ages—lamps that light
Man through his darker days, and thought enrich,
Yielding redemption for the weeks dull flight.
Wakeners of prayer in Man—his resting bowers
As on he journeys in the narrow way,
Where, Eden-like, Jehovah's walking hours
Are waited for as in the cool of day.
Days fixed by God for intercourse with dust,
To raise our thoughts, and, purify our powers;
Periods appointed to renew our trust—
A gleam of glory after six days' showers!
A milky way mark'd out through skies else drear,
By radiant suns that warm as well as shine—
A clue, which he who follows knows no fear,
Though briars and thorns around his pathway twine.
Foretastes of Heaven on earth—pledges of joy
Surpassing fancy's flight and fiction's story—
The preludes of a feast that cannot cloy,
And the bright out-courts of immortal glory!

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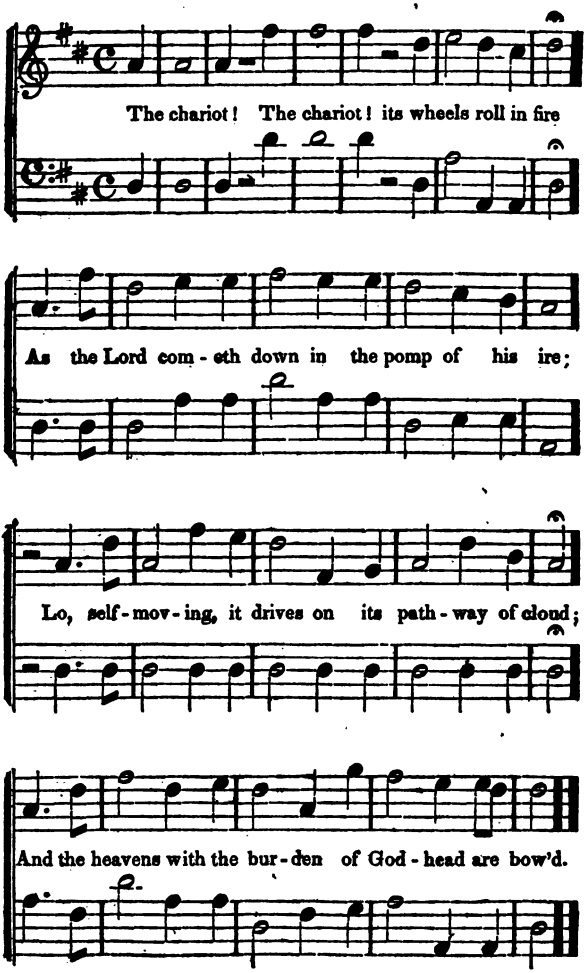
THE TRUMPET, 12s.

The chariot! The chariot! its wheels roll in fire
As the Lord com-eth down in the pomp of his ire;
Lo, self-mov-ing, it drives on its path-way of cloud;
And the heavens with the bur-den of God-head are bow'd.

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THE CHARIOT.

The chariot! the chariot! its wheels roll in fire,
As the Lord cometh down in the pomp of his ire;
Lo, self-moving it drives on its pathway of cloud,
And the heavens with the burden of Godhead are bow'd.

The glory! the glory! around him are pour'd,
Mighty hosts of the angels that wait on the Lord;
And the glorified saints, and the martyrs are there,
And there all who the palm-wreaths of victory wear!

The trumpet! the trumpet! the dead have all heard:
Lo, the depths of the stone-cover'd charnel are stirr'd!
From sea, from the earth, from the south, from the north,
All the vast generations of man are come forth!

The judgment! the judgment! the thrones are all set,
Where the Lamb and the white-vested elders are met!
There all flesh is at once in the sight of the Lord,
And the doom of eternity hangs on his word.

O mercy! O mercy! look down from above,
Great Creator, on us, thy sad children, with love!
When beneath to their darkness the wicked are driven,
May our justified souls find a welcome in heaven!

MORNING THOUGHTS.

'Tis morning, and the day before me spreads,
In soft and tranquil beauty. The bright sun
His earliest smile upon my casement sheds,
As if to call me forth, with him, to run
The glorious race of duty. I've begun,
But know not if with him the day I close.
Some day must be my last! and oh! what one!
It matters not to me. My soul foregoes
All wishes, save that conscience feel a pure repose.

But such repose, ah! how can I enjoy,
Unless my heart glow with that holy love,
Which prompts the burning seraph to employ
His glorious powers in yon bright world above,
In the blest service of the God of Love?
O may my spirit kindle into flame!—
Wise as the serpent, harmless as the dove,
Be my pure fervor for my Saviour's name;
O that my love might answer His endearing claim!

That, that will never be upon this earth!
Where Imperfection holds lamented sway;
Where but in part we know His sacred worth:

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Where fierce Temptation hovers o'er his prey:
Pierced with a thousand wounds from day to day,
My soul had perish'd, but the balmy blood
Of Calvary was applied. I hold no play
Henceforth with sin. Along the heavenly road,
Radiant with Thine own steps, I follow Thee, my God!

THERE IS A VOICE.

The sun is up—the flowering spring
Has gone abroad upon the earth,
And birds are out upon the wing,
To greet the joyous season's birth—
Yet there's a voice in every hour,
In every plant, in every flower—
I hear it still by night and day,
It bids me rise, and haste away.
Yon beauteous sun will swiftly set—
The Spring will fly—the flowers decay—
The birds their minstrelsy, forget—
And I shall be as mute as they—
There is a voice in waning years,
There is a voice in memory's tears—
I count my warnings one by one,
Time hastens, and I must be gone.

ONCE 'TWAS MY HOPE.

BY T. H. BAILY.

Once 'twas my hope, upon this spot
A tender flower to raise;
I thought its bloom would be my pride
Through many summer days;
But ere the sunbeam's smile had lured
Its perfect fragrance forth,
Its soft leaves severed from the stem
Lay trampled on the earth.
I sorrowed all the winter time,
And bitter tears I shed;
When spring returned it found me still
A mourner o'er the dead:
But soon I saw the plant arise,
And spurn its earthly tomb,
More beautiful than when I nursed
Its infancy of bloom
That lesson in my memory
I'll treasure up with care;
I will not sorrow for the dead
With impious, mad despair;
I know hereafter they'll shake off
This perishable earth,
And boast an immortality
Of beauty and of worth!

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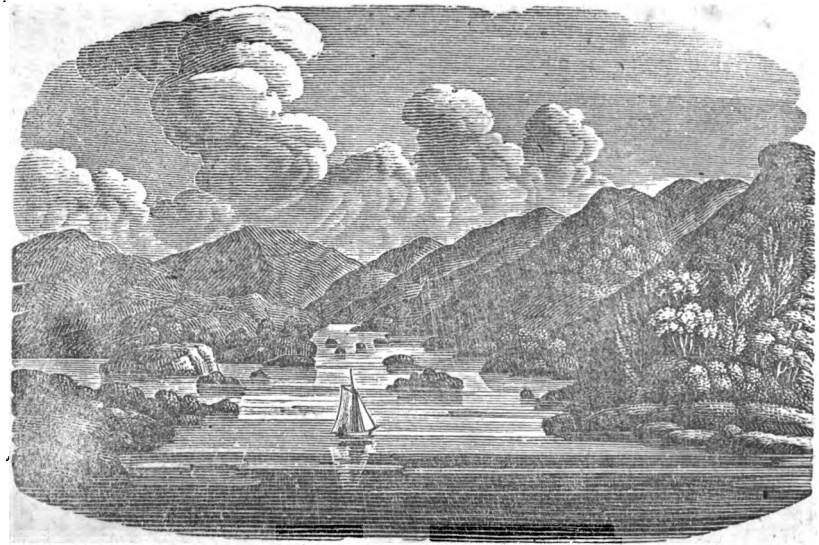

VIEW OF LAKE GEORGE.

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THE

MONTHLY REPOSITORY,

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Entertaining Knowledge.

VOL. III. AUGUST, 1832. No. 3.

LAKE GEORGE.

This beautiful sheet of water must be classed among our smaller lakes, being only a mile wide near its head, and rarely exceeding two miles through its length of thirty-six. But though inconsiderable in magnitude when compared with our inland oceans, Erie or Ontario, Lake George combines in an unrivalled degree all the elements of beauty. It abounds with such varieties of scenery, that the slightest change in the position of the beholder, the most trifling variation in the accompaniments of light and shadow is frequently sufficient to develope charms unseen and unimagined before, and indeed, with its crystal waters and its diamond islands, its majestic mountains and its vast old forests, its embattled ruins consecrated by the blood of our fathers and its hundred legends in which their deeds have been embalmed, it presents attractions to the traveller such as few other places in our country possess. We have seen it in every variety of circumstance and always found it beautiful. In calm or storm, by daylight or by moonlight, its beauty may vary but it is still beautiful. No where else have we seen the Sun rise with so much magnificence. The lake is so closely environed by lofty mountains that the surrounding world is arrayed in light long before the sun has acquired sufficient elevation to overtop the barrier they form, and then, the effect produced by his sudden appearance is truly superb. Immense masses of vapour are seen rising like a curtain from the water, and slowly rolling up the sides of the hills, when the Sun, like a flood of blazing gold, burst-

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ing over the mountain barrier and pouring a torrent of light into the obscure area below, in an instant, as by enchantment, covers with dazzling splendor every point in the unrivalled landscape.

The water of Lake George is of crystal purity, so clear and bright that the bottom may be seen at almost any depth; and anglers in pursuit of the fine spotted trout with which it abounds, can select their fish, even where the water is twenty-five feet deep, by bringing the hook near the mouth of the fish which they prefer.

The French, who first visited the country, regarded this unusual transparency with superstitious reverence, and deeming so pure an element peculiarly fitted for the ceremonies of their religion, they employed it for sacramental purposes, and gave the lake the name of the "Lake of the Sacrament." The English, subsequently named it after their Patron Saint. The islands of Lake George add much to the beauty of its scenery. They are very numerous, and of every variety of size and form. Their exact number is not known, but the inhabitants say there is one for every day in the year. These islands abound with crystals which are not surpassed by any in the world for brilliancy and perfection of form. The country people who collect the crystals to sell to travellers call them diamonds, and one of the islands which has been particularly famous for affording them is generally known as the "Diamond Island."

Lake George, peaceful and calm as its ordinary appearance is, and shut out as it seems to be by its mountain barriers from the angry passions of the world, holds a conspicuous place in the annals of American war. Where the village of Caldwell now stands, the Marquis of Montcalm's army was entrenched at the siege of Fort William Henry in 1757, and some marks of his entrenchments are still visible. The remains of the Fort may still be seen, the walls, the outworks and the ditches can be distinctly traced, and the well that supplied the garrison is in use at this day. Fort George is in better repair. Its circular massive walls of stone are still twenty feet high, and in tolerably good preservation.

August 1*st*, 1832.

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CIRCLE OF THE SCIENCES, WITH SUITABLE REFLECTIONS.

COMETS.

Comets are distinguished from the other celestial bodies, by their ruddy appearance, and by a long train of light, called the *tail*, which sometimes extends over a considerable portion of the heavens, and which is so transparent, that the stars may be seen through it. The tail is always directed to that part of the heavens which is opposite to the sun, and increases in size as it approaches him, and is again gradually diminished, as the comet flies off to the more distant regions of space. Their apparent magnitude is very different: sometimes they appear only of the bigness of the fixed stars; at other times they equal the diameter of Venus; and sometimes they have appeared nearly as large as the Moon. They traverse the heavens in all directions, and cross the orbits of the planets. When examined through a telescope, they appear to consist of a dark central nucleus, surrounded by a dense atmosphere, or mass of vapors. They have been ascertained to move in long narrow *ellipses* or *ovals*, around the sun; some of them, on their nearest approach to him, having been within a million of miles of his centre; and then fly off to a region several thousands of millions of miles distant. When near the sun, they move with amazing velocity. The velocity of the comet which appeared in 1680, according to Sir Isaac Newton's calculation, was eight hundred and eighty thousand miles an hour. They appear to be bodies of no great density, and their size seldom exceeds that of the moon. The length of the tails of some comets has been estimated at fifty millions of miles. According to Dr. Herschel's computations, the solid nucleus, or central part of the comet which appeared in 1811, was only 428 miles in diameter; but the real diameter of the head, or nebulous portion of the comet, he computed to be about 127 thousand miles. The length of its tail he computed to be above one hundred millions of miles, and its breadth nearly fifteen millions. It was nearest to the earth on

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the 11th October, when its distance was 113 millions of miles. The number of comets which have occasionally been seen within the limits of our system since the commencement of the Christian era, is about 500, of which the paths or orbits of 98 have been calculated.

As these bodies cross the paths of the planets in every direction, there is a possibility, that some of them might strike against the earth in their approach to the sun; and, were this to happen, the consequences would be awful beyond description. But we may rest assured that that Almighty Being who at first launched them into existence, directs all their motions, however complicated; and that the earth shall remain secure against all such concussions from celestial agents, till the purposes of his moral government in this world shall be fully accomplished. What regions these bodies visit, when they pass beyond the limits of our view; upon what errands they are sent, when they again revisit the central parts of our system; what is the difference in their physical constitution, from that of the sun and planets; and what important ends they are destined to accomplish, in the economy of the universe, are inquiries which naturally arise in the mind, but which surpass the limited powers of the human understanding at present to determine. Of this, however, we may rest assured, that they were not created in vain; that they subserve purposes worthy of the infinite Creator; and that wherever he has exerted his power, there also he manifests his wisdom and beneficence.

Such is a general outline of the leading facts connected with that system of which we form a part. Though the energies of Divine Power had never been exerted beyond the limits of this system, it would remain an eternal monument of the wisdom and omnipotence of its Author. Independent of the Sun, which is like a vast universe in itself, and of the numerous comets which are continually traversing its distant regions, it contains a mass of material existence, arranged in the most beautiful order, two thousand five hundred times larger than our globe. From late observations, there is the strongest reason to conclude

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that the sun, along with all this vast assemblage of bodies, is carried through the regions of the universe, towards some distant point of space, or around some wide circumference, at the rate of more than sixty thousand miles an hour; and if so, it is highly probable, if not absolutely certain, that we shall never again occupy that portion of *absolute space*, through which we are this moment passing, during all the succeeding ages of eternity.

Such a glorious system must have been brought into existence, to subserve purposes worthy of the Infinite Wisdom and Benevolence of the Creator. To suppose that the distant globes of which it is composed, with their magnificent apparatus of Rings and Moons, were created merely for the purpose of affording a few astronomers, in these latter times, a peep of them through their glasses, would be inconsistent with every principle of reason; and would be charging Him who is the source of Wisdom, with conduct which we would pronounce to be folly in the sons of men. Since it appears so far as our observation extends, that matter exists solely for the sake of sensitive and intelligent beings, and that the Creator made nothing in vain; it is a conclusion to which we are necessarily led that the planetary globes are inhabited by various orders of intellectual beings, who participate in the bounty, and celebrate the glory of their Creator.

When this idea is taken into consideration, it gives a striking emphasis to such sublime declarations of the Sacred Volume as these:—"All nations before him are as nothing—He sitteth upon the circle of the earth, and the inhabitants thereof are as grasshoppers—The nations are *as the drop of a bucket*—All the inhabitants of the world *are reputed as nothing* in his sight; and he doth according to his will in the army of heaven, and among the inhabitants of the earth—Thou hast made heaven, and the heaven of heavens, with all their host; and thou preservest them all, and *the host of heaven worshippeth thee*—When I consider thy heavens, *what is man*, that thou art mindful of him!" If the race of Adam were the principal intelligences in the universe of God, such passages would be stripped of all their

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sublimity, would degenerate into mere hyperboles, and be almost without meaning. If man were the only rational being who inhabited the MATERIAL WORLD, as some arrogantly imagine, it would be no wonder at all, that God should be "mindful of him;" nor could "all the inhabitants of this world," with any propriety, be compared to "a drop of a bucket," and be "reputed as nothing in his sight."—Such declarations would be contrary to fact, if this supposition were admitted; for it assumes, that man holds the *principal station* in the visible universe. The expressions—"The heavens, the heaven of heavens," and "the host of heaven worshipping God," would also, on this supposition, degenerate into something approaching to mere inanity. These expressions, if they signify any thing that is worthy of an Inspired Teacher to communicate, evidently imply, that the universe is vast and extensive, beyond the range of human comprehension—that it is peopled with myriads of inhabitants—that these inhabitants are possessed of intellectual natures, capable of appreciating the perfections of their Creator—and that they pay him a tribute of rational adoration. "The host of heaven worshippeth thee." So that the language of Scripture is not only consistent with the doctrine of a plurality of worlds, but evidently supposes their existence to all the extent to which the discoveries of modern science can carry us. However vast the universe now appears —however numerous the worlds and systems of worlds, which may exist within its boundless range—the language of Scripture is sufficiently comprehensive and sublime, to express all the emotions which naturally arise in the mind, when contemplating its structure—a characteristic which will apply to no other book, or pretended revelation. And this consideration shows, not only the harmony which subsists between the discoveries of Revelation and the discoveries of Science, but also forms, by itself a strong presumptive evidence, that the Records of the Bible are authentic and divine.

Vast as the Solar System, we have now been contemplating, may appear, it is but a mere point in the map of creation. To a spectator placed in one of the stars of the seventh magnitude, not only the glories of

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this world, and the more resplendent scenes of the planet Saturn, but even the sun himself would entirely disappear, as if he were blotted out of existence. "Were the sun," says Mr. Addison, "which enlightens this part of the creation, with all the host of the planetary worlds that move about him, utterly extinguished and annihilated, they would not be missed by an eye that could take in the whole compass of nature, more than a grain of sand upon the sea shore. The space they possess is so exceedingly little, in comparison of the whole, that it would scarce make a blank in creation."

HISTORICAL AND PHYSICAL GEOGRAPHY OF THE HOLY LAND—No. VI

MOUNTAINS.

Palestine is a mountainous country, especially that part of it which is situated between the Mediterranean or Great Sea and the river Jordan. The principal MOUNTAINS, not already mentioned, are those of Lebanon, Carmel, Tabor, the mountains of Israel and of Gilead.

1. *Lebanon*, by the Greeks and Latins termed Libanus, is a long chain of lime-stone mountains, extending from the neighbourhood of Sidon on the west to the vicinity of Damascus eastward, and forming the extreme northern boundary of the Holy Land. It is divided into two principal ridges or ranges parallel to each other, the most westerly of which is known by the name of Libanus, and the opposite or eastern ridge by the appellation of Anti-Libanus. These mountains may be seen from a very considerable distance; and it rarely happens that some part or other of them is not covered with snow throughout the year. They are by no means barren, but are almost all well cultivated and well peopled: their summits are, in many parts, level, and form extensive plains, in which are sown corn and all kinds of pulse. They are watered by numerous springs, rivulets, and streams of excellent water, which diffuse on all sides freshness and fertility, even in the most elevated regions. To these Solomon has a beau-

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tiful allusion. (Song iv. 15.) Lebanon was anciently celebrated for its stately cedars, which are now less numerous than in former times: they grow among the snow near the highest part of the mountain, and are remarkable, as well for their age and size, as for the frequent allusions made to them in the Scriptures. (See 1 Kings iv. 33. Psal. lxxx. 10. and xcii. 12, &c. &c.)

Anti-Libanus or *Anti-Lebanon* is the more lofty ridge of the two, and its summit is clad with almost perpetual snow, which was carried to the neigbouring towns for the purpose of cooling liquors (Prov. xxv. 13. and perhaps Jer. xviii. 14.); a practice which has obtained in the east to the present day.

2. Mount Carmel is a range of hills, about 1500 feet in height, and extending six or eight miles, nearly north and south. It is situated about ten miles to the south of Acre or Ptolemais, on the shore of the Mediterranean Sea. Its summits abound with oaks and other trees; and, among brambles, wild vines and olive trees are still to be found. On the side next the sea is a cave, to which some commentators have supposed that the prophet Elijah desired Ahab to bring Baal's prophets, when celestial fire descended on his sacrifice. (1 Kings xviii. 19—40.) There was another mount Carmel, with a city of the same name, situated in the tribe of Judah, and mentioned in Joshua xv. 55. 1 Sam. xxv. 2. and 2 Sam. iii. 3.

3. Tabor or Thabor is a mountain of a conical form, entirely detached from any neighbouring mountain, and stands on one side of the great plain of Esdraelon: it is entirely covered with green oaks, and other trees, shrubs, and odoriferous plants. The prospects from this mountain are singularly delightful and extensive; and on its eastern side there is a small height, which by ancient tradition is supposed to have been the scene of our Lord's transfiguration. (Matt. xvii. 1—8. Mark ix. 2—9.)

4. The Mountains of Israel, also called the mountains of Ephraim, were situated in the very centre of the Holy Land, and opposite to the Mountains of Judah. The soil of both is fertile, excepting those ridges

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of the mountains of Israel which look towards the region of the Jordan, and which are both rugged and difficult of ascent, and also with the exception of the chain extending from the Mount of Olives near Jerusalem to the plain of Jericho, which has always afforded lurking places to robbers. (Luke x. 30.) The most elevated summit of this ridge, which appears to be the same that was anciently called the rock of *Rimmon* (Judg. xx. 45. 47.), is at present known by the name of *Quarantania*, and is supposed to have been the scene of our Saviour's temptation. (Matt. iv. 8.) It is described by Maundrel as situated in a mountainous desert, and being a most miserably dry and barren place, consisting of high rocky mountains, torn and disordered as if the earth had here suffered some great convulsion. The MOUNTAINS OF EBAL (sometimes written *Gebal*) and GERIZIM (Deut. xi. 29. xxvii. 4. 12. Josh. viii. 30—35.) are situated, the former to the north, and the latter to the south of Sichem or Napolose, whose streets run parallel to the latter mountain, which overlooks the town. In the mountains of Judah there are numerous caves, some of a considerable size: the most remarkable of these is the cave of Adullam, mentioned in 1 Sam. xxii. 1, 2.

5. The MOUNTAINS OF GILEAD are situated beyond the Jordan, and extend from Hermon southward to Arabia Petræa. The northern part of them, known by the name of Bashan, was celebrated for its stately oaks and numerous herds of cattle pastured there, to which there are many allusions in the Scriptures. (See among other passages, Deut. xxxii. 14. Psal. xxii. 12. and lxviii. 15. Isa. ii. 13. Ezek. xxxix. 18. Amos iv. 1.) The middle part, in a stricter sense, was termed *Gilead;* and in the southern part, beyond Jordan, were the *Mountains of Abarim*, the northern limits of the territory of Moab, which are conjectured to have derived their name from the passes between the hills of which they were formed. The most eminent among these are *Pisgah* and *Nebo*, which form a continued chain, and command a view of the whole land of Canaan (Deut. iii. 27. xxxii. 48—50. xxxiv. 1, 2, 3.) From Mount Nebo, Moses surveyed the promised land, before he was *gathered to his people.* Numb. xxvii. 12,

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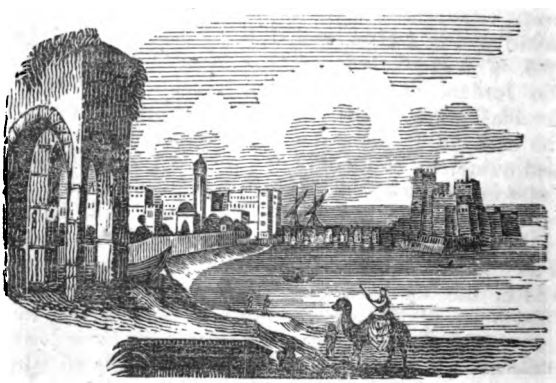
13.) The Hebrews frequently give the epithet of ***everlasting*** to their mountains, because they are as old as the earth itself. See, among other instances, Gen. xlix. 26. and Deut. xxxiii. 15.

The mountains of Palestine were anciently places of refuge to the inhabitants when defeated in war (Gen. xiv. 10.); and modern travellers assure us that they are still resorted to for the purpose of shelter. The rocky summits found on many of them appear to have been not unfrequently employed as altars, on which sacrifices were offered to Jehovah (Judg. vi. 19—21. and xiii. 15—20.); although they were afterwards converted into places for idol worship, for which the prophets Isaiah (lvii. 7.) and Ezekiel (xviii. 6.) severely reprove their degenerate countrymen. And as many of the mountains of Palestine were situated in desert places, the *shadow* they project has furnished the prophet Isaiah with a pleasing image of the security, that shall be enjoyed under the kingdom of Messiah. (xxxii. 2.)

TOPOGRAPHICAL SKETCHES.—No. III.



CASTLE AND PORT OF SEYDA, THE ANCIENT SIDON.

The present town of Seyda extends along the sea shore for a space of less than a mile in length, and is not more than half a mile in its general breadth from

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the water to its inner border; standing on a gradually ascending slope, from the sea to the more elevated ground behind, its appearance from without is more pleasing than many other towns of a better description in their interior. Towards the sea-side an old castle, said to have been built by the crusaders of France, and the ruins of another, running out at the extremity of a ledge of rocks, with arches, tend to give the harbour a picturesque appearance, particularly when a few of the native vessels of the coast are seen behind this ledge, where they usually anchor for shelter, if bound to some other port, or for convenience while discharging and taking in their cargoes here.

The buildings of Seyda are not at all superior to the common order of Mahommedan edifices in the modern towns of Syria; the streets are extremely narrow, the mosques mean, the caravansaries small and incommodious, and the bazaars few and badly furnished with even the necessaries in general request. The inhabitants are variously estimated, at from 5,000 to 10,000; perhaps the true number would be found to be between 7,000 and 8,000. The great majority of these are Mahommedans, the Christians not exceeding 1,000, and the Jews less than 500.—*Buckingham's Travels among the Arab Tribes.*

VIENNA.

Vienna, the capital of Austria and of the whole German empire, is one of the most interesting cities in Europe. It is worthy of notice on its own account, and its name is associated with some of the most stirring incidents in history. This splendid city, which with its numerous suburbs, contains three hundred thousand inhabitants derives its name from the insignificant stream which passes through it, for strictly speaking, it does not, as is commonly said, stand upon the Danube, but upon one of its smaller arms, the river itself being a mile to the northward and separated from the city by an extensive suburb and a large tract of ground planted with groves and laid out with gardens.

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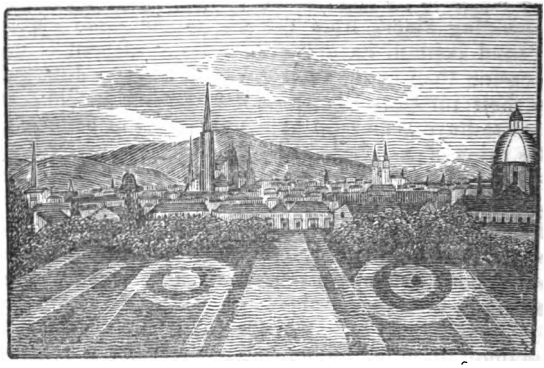

The proper city is nearly circular in form and is about three miles in circumference. The style of building is not in general ornamental, but is massive and imposing, and the lofty houses rising to four and five stories on either side the narrow streets, have an air of sober and solid stateliness which when not degenerating into gloom, is perhaps the most becoming and appropriate style for the architecture of a large city. Some individual masses of building in the very centre of the city are as populous as moderate villages. One of these is peopled by more than twelve hundred inhabitants, and another belonging to Prince Esterhazy contains 150 dwelling houses. Even the ordinary buildings are generally in the form of a square surrounding a court. The suburbs cover much more ground than the proper city, but they are not so densely inhabited; and though they contain five sixths of the whole number of houses which form the Capital, yet from the larger size of the buildings in the proper city they do not contain so large a proportion of the inhabitants. A considerable part of the suburbs is occupied with gardens belonging to the nobility, many of whom, besides their houses in the city have palaces and picture galleries here. Vienna has some very noble public squares which are not, as in other cities, places of recreation but of business. "They are not planted but they are excellently paved; they are not gaudy with palaces, but they are

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surrounded by bustling shops and comfortable dwellings," and are commonly adorned with public fountains. The Prater of Vienna is the finest public park in Europe. It lies on the north of the city and occupies part of a broad and level tract which is formed into an island by the Danube and one of its branches. Part of this beautiful promenade is divided into shaded alleys by rows of magnificent horse-chesnuts, and here every day may be seen long lines of glistering carriages with crowds of attendant cavaliers galloping along in gay and gallant style, doing homage to the beauties they contain; while in the more retired paths that wind through the denser parts of the wood, merry groups of the lower orders are wandering unconstrained, now by the brink of some pure rivulet, now along the banks of the magnificent Danube, in which these smaller streams are lost. But the Prater is not the only delightful place to which the Viennese love to resort. The fortifications, the same from which the Turks were twice obliged to retire, are now converted into promenades; Napoleon's legions having taught Vienna that they could no longer be depended on for the protection of her citizens. From the foot of the ramparts stretches out the glacis, an extensive level space which runs entirely round the city, except where its walls are washed by an arm of the Danube. Part of the glacis has been laid out in gardens for the Imperial family and the rest is covered with shady groves which form the favorite resort of both sexes. After the repulse of the Turks by Sobieski in 1683 measures were adopted to obviate the necessity of destroying the suburbs in case of another siege, and with this view no houses, without the walls, were allowed to be built nearer to the glacis than 600 yards, so that there is around the city a circular field of that breadth, which presents a very beautiful appearance. Beyond this the ground rises, and along the eminences stretch in splendid perspective the thirty four suburbs of Vienna, even these again being finally surrounded by a brick wall. The capital of Austria exhibits among its inhabitants a great diversity of character as it contains representatives of all the heterogeneous provinces of which the empire is composed. Here

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you see the joyous and happy Austrian, pleased with himself and inclined to please every body else, the proud and haughty Hungarian, the sensitive Bohemian, the reserved and dignified Pole, and the cautious and taciturn Italian. There are in Vienna five theatres, and fifty seven churches, of which the Cathedral is by far the most majestic. St Stephens church is remarkable for its beautiful tower which rises four hundred and fifty feet from the pavement and leans visibly from the perpendicular. This is said to have been first produced by the bombardment of the Turks in 1683, and to have been increased by the cannonading of the French during the late war. This church also contains the chapel of the Princess of Lichtenstein in which a long inscription informs the visiter that by a grant of his holiness Pope Pius VI. the soul of a Lichtenstein shall be released from purgatory every time a mass is said at its altars.

The Literary and other public institutions of Vienna are justly famous; but our limits preclude our dwelling on them here, and compel us to remain satisfied with the imperfect sketch we have already given of the Capital City of the imperial house of Hapsburgh.

YOUNG GENTLEMEN'S DEPARTMENT.

FORMATION OF CHARACTER.

To the acquisition of extensive knowledge incessant application and industry are necessary. Nothing good or great has ever been achieved without them. Be willing then to labor—be not satisfied with superficial attainments, but accustom yourselves to habits of accurate and thorough investigation. Explore the foundation and first principles of every science. It is observed by Locke, that "there are fundamental truths that lie at the bottom; the basis upon which a great many others rest, and in which they have their consistency: these are teeming truths, rich in store with which they furnish the mind, and like the lights of heaven, are not only beautiful and entertaining in

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themselves, but give light and evidence to other things that without them could not be seen or known." These are the truths with which we should endeavor to enrich our minds. Be select in your reading; become familiar with the writings of the great master spirits of the world, who will enrich your minds with profound, enlarged, and exalted views, and who, while they form you to habits of just and noble thinking, will also teach you to cherish pure and generous feeling.

If you would make these thorough acquisitions you must guard against the immoderate indulgence of sensual pleasures and the seductions of evil companions. A life of dissipation and pleasure is death to superior excellence. A body invigorated by habits of temperance and self denial, and a mind undisturbed by unholy passions, serene and cheerful from conscious rectitude, are most powerful auxiliaries in the pursuit of science.

It will be equally important for you to guard against self sufficiency and vanity. This temper is an effectual barrier against high intellectual improvement. Frequently reflect on the small extent and the imperfection of your attainments—on the vast regions of science that are as yet unexplored by you—on the hidden stores of learning which are contained in the ten thousand books that you have never read or seen, or of which perhaps you have not even heard. Remember, too, the lofty attainments that have been made by some profound scholars both of ancient and modern days. I would recommend to you, to read in early life a few well selected Biographies of men who were distinguished for their general knowledge. Read the lives of Demosthenes, of Cicero, of Erasmus, of Newton, of Locke, of Hale, of Haller, of Doddridge, of Johnson, and other such accomplished and illustrious scholars. Observe the ardent attachment and intense industry with which they cultivated science, and the astonishing acquirements which they made; their high valuation of time and careful improvement of it—Compare your own attainments and habits with theirs—not to repose in sluggish despondency, but to rouse yourselves from apathy and sloth to a noble emulation of rising to an equality with them. It was by no secret

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magic that these mighty scholars attained to distinction and fame—it was by patient, persevering, untiring industry. If the eloquence of Demosthenes shook with its thunder the throne of Philip and ruled the fierce democracy of Athens—and if the vehement denunciations and powerful appeals of Cicero drove Catiline from the Senate House, and made Cæsar tremble, it was because by the private studies and profound meditations of the closet, their minds had been invigorated and expanded, and enriched and ennobled with diversified knowledge, lofty sentiment and generous feeling.—If Newton, with a flight more adventurous than the eagle's, soared to the very boundaries of creation—if he explained the laws that govern the movements of the Universe and let in a new flood of light upon the world—it was ardent attachment to science—it was intense, patient, untiring industry, that gave to the pinions of his mind that vigor which elevated and sustained him at so lofty a height.—If Milton has shed over his epic pages a learning almost unrivalled, and has soared on the adventurous wings of his muse to scenes hidden from mortal eyes in the abysses of eternity and immensity, and sung in strains that almost rival the notes that Seraphs sing—it was because in his own nervous language, "to devout prayer to that Eternal Spirit that can enrich with all utterance and knowledge, and sends out his Seraphim with the hallowed fire of his Altar to touch and purify the lips of whom he pleases," he added "industrious and select reading, steady observation and insight into all seemly and generous arts and affairs." If Locke and Reid and Stewart have dispelled the darkness that for ages had settled on the human intellect, and have freed the science of the mind from the intricacies and subtleties of the schools, it was not merely owing to the force of genius, but to deep, patient, and repeated meditation and study. —If Burke charmed listening Senates by the masculine strength and brilliancy of his thoughts—if Mansfield and our own Hamilton illumined the bar by the splendor of their learning and their eloquence—if Hall and Chalmers proclaimed from the pulpit immortal truths in loftiest strains, it was not only because they

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ranked among the first scholars, but also among the most laborious men of their age.—Contemplate the character of these illustrious men, and if you cannot hope to rival—What am I saying? If you cannot hope to rival! Yes, imitate their industry, their eager love of learning, and the zeal with which they pursued it, and you may equal them. The field is before you; cultivate it with diligence and you shall reap a rich harvest. Other Demosthenes and Ciceros will yet arise to control by their eloquence the fierce Democracy—other Newtons will unfold the mysteries of creation—other Miltons will sing in exalted verse—other Lockes and Reids and Stewarts will develope the powers of the mind—other Burkes will charm listening Senates—other Mansfields and Hamiltons will illumine the bar, and other Halls and Chalmers will, with hallowed eloquence, dispense to listening crowds eternal truth. Few men are willing to submit to the incessant application and self-denial, and few possess that vehement passion for learning, which are necessary to attain to so lofty distinction. They only aim to pass through life with ease and pleasure, and though it would gratify them to be distinguished as scholars, they shrink from the toil which accompanies the attainment of scholarship. Do you have courage to take a loftier aim. Look high. Cultivate your intellectual powers —abstain from sensual indulgences—be willing to labor—persevere in all things—never be satisfied with what you have attained—think nothing done while any thing remains to be done, and sooner or later you will rank among the illustrious scholars and bright luminaries of the age.

YOUNG LADIES' GARLAND.

FEMALE VIRTUES.

Society, which requires of men, each according to what he has received, the various gifts which nature has distributed, seems to demand of *woman* a tribute nearly uniform. It is hers to be the comfort and ornament of the domestic habitation, to render herself be-

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loved and useful, and scatter here and there the flowers of life under the feet of those who surround her. It is hers to cheer, to bless, and to console; to brighten the hours of joy, sweeten the draught of pleasure, and aid in drinking the cup of pain. To her, the avenues of power and grandeur are shut; but she can establish an empire of affection and confidence, of which she may be herself the centre; and enthroned in the hearts of those to whom her virtues have endeared her, it is hers to dispense those inestimable gifts, which increase the happiness and diminish the pains of life.

Cast often by his duty into a tempest of cares and business, man is assailed by the passions of his nature which find, unhappily, a thousand ways to deprave him. Trained, from his infancy, to the bustle and activity of his business, he is drawn into a whirlpool of schemes, projects, and speculations; of hopes which are destroyed and renewed without cessation; and he precipitates himself, rather than advances, towards the termination of his career, and attains, without perceiving it, the passage to a more permanent state. He consumes his life in anxiety, he calculates its years with sorrow; and demands with bitterness, "*What then, is the space which should separate childhood from dotage?*"

Devoted to occupations more peaceful, more sweet, more uniform, WOMAN can tranquilly number her days and signalize them by a thousand acts of virtue. In truth, her virtues must be exercised in the shade, and in silence. Fame will not speak of them, nor will posterity regard them; but *hope* cherishes their remembrance, for the great day of reward. Does she not resemble those flowers, whose hues are brighter by the aid of a favorable obscurity, than when they are exposed to the rays of a burning sun? The hope of finding a diamond, may induce a man often to grovel in the dirt; but a *woman* can preserve unsullied, the border of her garment.

Finally, to love all that is worthy, useful, good, and virtuous, and to fly all that is opposed to it—*is what society demands of woman.*

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SKETCHES OF FEMALE CHARACTER.

LADY RUSSELL.

The name of LADY RACHEL RUSSELL deserves an honorable place in the calendar of those who by their virtues and talents, have adorned and illustrated the female character. Belonging to one of the noblest families in Britain, passing a long series of years in the uninterrupted enjoyment of all the dangerous gifts of rank and wealth, and happily requited affection; then a lonely widow, the full cup of felicity suddenly dashed with a rude hand from her lips, the husband of her youth murdered on the scaffold, and his name vilified by the minions of tyranny;—prosperity never spoiled the humility of her disposition, nor did bitter adversity ever wring from her a murmur against the wisdom or the justice of the most afflicting dispensations of the providence of her GOD. This distinguished woman was the daughter of the Earl of South-hampton and the wife of the illustrious Lord William Russell, whose memory is so dear to every patriot as the martyr of liberty and the fellow sufferer of Hampden and Sidney. To Lord Russell she was an object of the most devoted attachment which she nobly requited, adhering to him with all a woman's constancy, through good report and through evil report, sharing with him the blessings of fortune and "troops of friends," and breasting by his side the torrent of persecution by which the close of his short but brilliant career was embittered. For sixteen years she enjoyed in his society as much of happiness as falls to the lot of human nature; when he was arrested for

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a pretended participation in the "Rye-House Plot," she enlisted by her efforts some of the most distinguished men in the Country in his favor; on his mock trial she assisted him in taking notes and making out his defence; and after he was executed in pursuance of a sentence of judicial murder, she devoted her exalted talents to the vindicating of his character. Her letter to King Charles the Second is a standing monument of her devotion to his memory; it might have moved the heart of a stone, though it made no impression upon that of a voluptuary.—Lady Russell survived her husband many years. She was repeatedly solicited in marriage by the admirers of her virtues, but she chose to spend the remainder of her life in widowhood, seeking the alleviation of her sorrows in the education of her children, the society and correspondence of her numerous literary friends, and above all in the inestimable comforts of religion. Her letters, in which her talents served as the handmaids of her virtues, and portrayed her beautiful character in all its simplicity and purity, were collected long after her death and published. They furnish a model well worthy of imitation. Among her correspondents we find the names of Archbishop Tillotson, Bishop Burnet, Bishop Patrick, the Princess of Orange, the truly pious Dr. Fitzwilliam, and many other persons equally distinguished for rank, talent, piety and learning. Some of the letters of these eminent individuals are introduced into the volume with those of Lady Russell, and they uniformly bespeak the highest respect for her character. We might, perhaps usefully extend the present article by a few extracts from the letters we have named, but we must content ourselves with giving one entire, which was written to Dr. Fitzwilliam soon after her husband's death, and which gives an admirable view of her truly amiable character. Lord Russell was brought to the scaffold on the 21st of July 1683, and this letter is dated the 30th of September in the same year.

To Dr. Fitzwilliam.—I need not tell you my good Doctor, how little capable I have been of such an exercise as this. You will soon find how unfit I am still

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for it, since my yet disordered thoughts can offer me no other than such words as express the deepest sorrows, confused as my yet amazed mind is. But such men as you, and particularly one so much my friend, will I know bear with my weakness and compassionate my distress, as you have already done by your good letter and excellent prayer. I endeavor to make the best use I can of both; but I am so evil and unworthy a creature that though I have desires yet I have no dispositions or worthiness towards receiving comfort. You that knew us both, and how we lived, must admit I have just cause to bewail my loss. I know it is common with others to lose a friend; but to have lived with such a one, it may be questioned how few can glory in the like happiness, so consequently lament the like loss. Who can but shrink at such a blow, till by the mighty aids of his holy spirit, we will let the gift of God which he hath put into our hearts interpose? That reason which sets a measure to our souls in prosperity, will then suggest many things which we have seen and heard, to moderate us in such sad circumstances as mine. But alas! my understanding is clouded, my faith weak, sense strong, and the devil busy to fill my thoughts with false notions, difficulties, and doubts; but this I hope to make a matter of humiliation, not sin. Lord, let me understand the reason of these dark and wounding providences, that I sink not under the discouragements of my own thoughts, I know I have deserved my punishment and I will be silent under it; but yet secretly my heart mourns, too sadly I fear, and cannot be comforted, because I have not the dear companion and sharer of all my joys and sorrows. I want him to talk with, to walk with, to eat and sleep with; all these things are irksome to me now; the day unwelcome, and the nights so too; all company and meals I would avoid, if it might be; yet all this is, that I enjoy not the world in my own way; and this sure hinders my comfort: when I see my children before me, I remember the pleasure he took in them; this makes my heart shrink. Can I regret his quitting a lesser good for a greater? O! if I did steadfastly believe, I could not be dejected; for I will not injure myself to say,

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I offer my mind any inferior consolation to supply this loss. No; I most willingly forsake this world—this vexatious, troublesome world, in which I have no other business, but to rid my soul from sin; secure by faith and a good conscience my eternal interests; with patience and courage bear my eminent misfortunes, and ever hereafter be above the smiles and frowns of it. And when I have done the remnant of the work appointed me on earth, then joyfully wait for the heavenly perfection in God's good time, when by his infinite mercy I may be accounted worthy to enter into the same place of rest and repose where he is gone, for whom only I grieve. From that contemplation must come my best support. Good doctor, you will think, as you have reason, that I set no bounds, when I let myself loose to my complaints; but I will release you, first fervently asking the continuance of your prayers for,

Your infinitely afflicted
But very faithful servant.

CABINET OF NATURE.

THE GREAT KENTUCKY CAVERN.

(Concluded from page 12.)

From the course of his needle, the Doctor expected that this avenue would have led circuitously to the chief city; but was much disappointed when he reached the extremity, at a few hundred yards distance from the fourth city. In retracing his steps, not having paid a due attention to mark the entrances of the different avenues, he was greatly bewildered, and once completely lost himself for nearly fifteen or twenty minutes. Thus, faint and wearied, he did not reach the chief area till ten at night; but was still determined to explore the cavern so long as his light should last. Having entered the fifth and last avenue from the chief area, and proceeded south-east about nine hundred yards, he came to the fifth area, the arch of which covers upwards of four acres of level ground, strewed with limestones, and having fire-beds of an uncommon size, surrounded with brands of cane interspersed. Another avenue on the opposite side, led to one of still greater

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capacity, the walls or sides of which were more perfect than any that had been noticed, running almost due south for nearly a mile and a half, and being very level and straight, with an elegant arch. While the Doctor was employed, at the extremity of this avenue, in sketching a plan of the cave, one of his guides, who had strayed to a distance, called on him to follow. Leaving the other guide, he was led to a vertical passage, which opened into a chamber at least 1800 feet in circumference, and the centre of the arch of which was 150 feet in height.

It was past midnight when he entered this chamber of eternal darkness; and when he reflected on the different avenues through which he had passed since he had penetrated the cave at eight in the morning, and now found himself buried several miles in the dark recesses of this awful cavern—the grave, perhaps of thousands of human beings—he felt a shivering horror. The avenue, or passage, which led, from it was as large as any he had entered; and it is uncertain how far he might have travelled had his lights not failed him. All those who have any knowledge of this cave, he observes, conjecture that Green River, a stream navigable several hundred miles, passes over three of its branches.

After a lapse of nearly an hour, he descended by what is called the "passage of the chimney," and joined the other guide. Thence returning to the chief area or city, where the lamps were trimmed for the last time, he entered the spacious avenue which led to the second hoppers. Here he met with various curiosities, such as spars, petrifactions, &c.; and these he brought away together with *a mummy* which was found at the second hoppers. He reached the mouth of the cave about three in the morning, nearly exhausted with nineteen hours of constant fatigue. He nearly fainted on leaving it and on inhaling the vapid air of the atmosphere, after having so long breathed the pure air occasioned by the nitre of the cave. His pulse beat stronger when withinside, but not so quick as when on the surface.

Here the Doctor observes that he has hardly described half the cave, not having named the avenues between

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its mouth and the second hoppers. This part of his narrative is of equal interest with what has been already given. He states that there is a passage in the main avenue, upwards of nine hundred feet from the entrance, like that of a trap-door. By sliding aside a large flat stone, you can descend sixteen or eighteen feet in a very narrow defile, where the passage comes on a level, and winds about in such a manner, as to pass under the main passage without having any communication with it, at length opening into the main cave by two large passages just beyond the second hoppers. This is called the "glauber-salt room," from salts of that kind being found there. Next come the sick room, the bat room, and the flint room, together with a winding avenue, which, branching off at the second hoppers, runs west and south-west for more than two miles. It is called the "haunted chamber," from the echo within: its arch is very beautifully incrusted with lime-stone spar; and in many places the columns of spar are truly elegant, extending from the ceiling to the floor. Near the centre of this arch is a dome, apparently fifty feet high, hung in rich drapery, festooned in the most fanciful manner, for six or eight feet from the hangings, and in colors the most rich and brilliant. By the reflection of one or two lights, the columns of spar and the stalactites have a very romantic appearance. Of this spar a large cellar, called "Wilkins' armed chair," has been formed in the centre of the avenue, and encircled with many smaller ones. The columns of spar, fluted and studded with knobs of spar and stalactites; the drapery of various colors superbly festooned, and hung in the most graceful manner; these are shown with the greatest brilliancy by the reflection of the lamps.

In the vicinity of the "haunted chamber," the sound of a cataract was heard; and at the extremity of the avenue was a reservoir of water, very clear and grateful to the taste, apparently having neither inlet nor outlet. Here the air, as in many other parts of the cave, was pure and delightful. Not far from the reservoir, an avenue presented itself, within which were several columns of the most brilliant spar, sixty or

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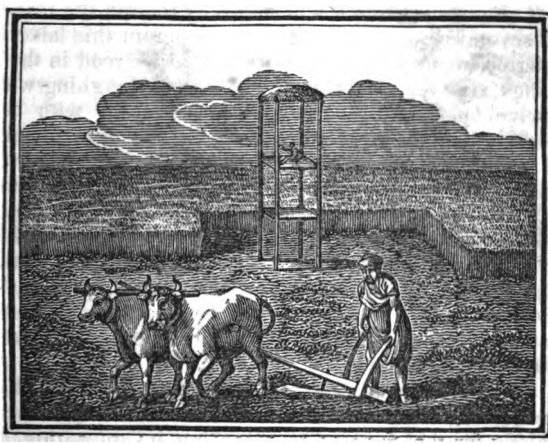
seventy feet in height, and almost perpendicular, standing in basins of water; which, as well as the columns, the Doctor observes, surpass, in splendor and beauty, every similar work of art he had ever seen.

Returning by a beautiful pool of water, the Doctor came to the second hoppers, where he had found the mummy before alluded to. It had been removed from another cave, for preservation, and was presented to him by his friend Mr. Wilkins, together with the apparel, jewels, music, &c. with which it was accompanied. It has since been placed in the Washington museum, the proprietor of which thinks it probable that this mummy is as ancient as the immense mounds of the western country, which have so much astonished the world.

METHOD OF PLOUGHING IN THE EAST.



The Machines used by the Eastern Nations for ploughing, are constructed upon the same general principle, though with considerable variation. The whole power of these instruments, however, seems only adapted for what our farmers would call scratching rather

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than ploughing the earth. It is evident from the above sketch of the eastern plough while at work, that it can only operate upon the surface of the ground; and is not like our machine, intended to turn up fresh earth, and subject it to the influences of the atmosphere. The plough-share of the latter is a mass of iron of great strength and magnitude; our swords also are of a length and form so ill adapted to be converted into plough-shares, and applied to peaceful purposes, that we do not feel the full force of the delightful idea conveyed in the prophet's prediction, "they shall beat their swords into plough-shares," until we observe that the plough-share employed by the oriental nations, is a broad but not a large piece of iron, which tips the end of the shaft; and are also informed that the swords of the ancient warriors were short and thick, so that a very little trouble indeed would convert them into plough-shares.

The oxen at plough will naturally remind the reader of several passages of scripture, wherein this labor is referred to as performed by oxen: so we read in the 1 Kings xix. ver. 19, that Elisha "was ploughing with twelve yoke of oxen before him, and he with the twelfth." This great number of oxen suggests the idea of great riches in their owner; and as they appear to have been the property of Elisha himself, or at least of his family, they lead us to suppose that he would not have quitted so much wealth, nor have offered his oxen as a farewell feast to his people, as related in the two last verses of the chapter above quoted, previously to his departure to follow after Elijah, had he not been conscious of a divine power influencing his mind and directing his actions.

Ploughing in the East was not always performed at once going over the land; the first time it was done chiefly for the purpose of preparing it: after this the seed was sown, and a second ploughing answered the purpose of our harrowing, by covering the seeds previously committed to the ground. It was in short harrowing and ploughing combined in one operation. That the first ploughing was a work requiring atten-

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tion, seems to be implied in the form of the phrase in Isaiah xxviii. 24. "Doth the ploughman plough all day to sow?" literally does he all day *plough plough?*

In addition to the ploughman at his labor, our sketch presents a view of part of a cultivated field, the corn of which is nearly ripe: near this corn is a kind of stage, of more than one story in height, whereon sits a man to guard the corn from depredators of every kind, and especially from those birds which are the enemies of the farmer all over the globe.

DEPARTMENT OF NATURAL HISTORY.

THE LOCUST.

The Locust is a winged insect, which at first sight appears like the largest kind of grasshopper, but on a more minute examination is found to differ from it very materially. Its head bears some resemblance to that of a common sheep, and is crowned with two tapering substances. It has a large mouth, and in its jaws are four teeth which pass each other like the blades of scissors; attached to its muzzle is a pair of feelers, which assist it in gathering up the herbage; in eating, it makes a champing noise, and the sound of a host of locusts feeding has been compared to the rattling of hailstones. It has four wings, (the hinder two of which are transparent,) and six legs; and each foot has two claws. It is stout made about the neck and breast, and the hinder part of its body is forked, and armed with a hard bony substance. The largest African Locust is about four inches long, and one inch in diameter.

Locusts go forth in bands or flights, and when they take the field, they have a leader at their head which directs all their motions. They appear at a distance like a black cloud, and are sometimes so numerous, as to darken the air at noon day. Wretched is the district upon which they fix; they ravage the meadow and the corn land, strip the trees of their leaves, and the gardens of their beauty; the visitation of a few minutes destroys the expectations of a year, and a famine too frequently follows.

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sect as his scourge to punish guilty nations! When he wills to work he never wants means; nor will the weakness of the instrument he employs ever defeat his purpose.

RETROSPECTION.

Oh, 'tis pleasant, when we have returned from a long, long absence, to re-visit the scenes of our childhood, and view in sweet retrospection, the hallowed spot rendered dear to us by the recollection of our happier days. It brings back to our minds the time when, surrounded by our friends and kindred, we gaily sported amid the smiles of those dear objects who are now slumbering in the tomb! We were happy then—we knew not the troubles of life; we were strangers to sorrow, nor had the heavy hand of affliction bowed our proud spirits to the earth! Had we then known the numerous trials that awaited us, we should have recoiled with horror at the thought. Driven from our home by cruel destiny, we have met the world's cold frown with fortitude—we have buffeted the raging billows of misfortune—the storm of affliction has laid us low—we have languished in despair, and even cursed the hour that gave us birth!—We have met the world's cold frown with fortitude—like a stately oak we have withstood the peltings of the pitiless storm—yet now—when we are recalled to recollection by the scenes of the past, our hearts sicken within our bosoms—we weep even at our own misery—but there is pleasure in our tears, it awakens feelings of the holiest nature, and raises our souls in holy devotion to Heaven!

There is something in the place of our nativity that renders it dear to us—no matter how humble—no matter how miserable. The lonely thatched cottage is dearer far to its inhabitants, than the pomp and splendor of a palace—show and grandeur can never purchase happiness to a heart laden with sorrow and misfortune. Gold may indeed satisfy our bodily wants but can never afford consolation to a troubled mind—It deludes us for a moment, leads our delighted imagination like an ignis-fatuus to the brink of destruction, when it suddenly vanishes, and

> "Like the traceless fabric of a vision,
> Leaves not a wreck behind."

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POETRY & MUSIC.

THE BAPTISM.

The following beautiful lines by Mrs. Sigourney, are taken from the Christian Offering, a religious annual.

'Twas near the close of that blest day, when with melodious swell,
To crowded mart and lonely shade had spoken the Sabbath-bell;
And on a broad, unruffled stream, with bordering verdure bright,
The westering sunbeam richly shed a tinge of crimson light,—

When, lo! a solemn train appeared, by their loved pastor led,
And sweetly rose that holy hymn as toward that stream they sped,
And he its cleaving, crystal breast, with graceful movements trod,
His steadfast eye upraised, to seek communion with his God.

Then, bending o'er his staff, approached the willow fringed shore,
A man of many weary years, with furrowed temples hoar;
And faintly breathed his trembling lip, "Behold! I fain would be
Buried in baptism with my Lord, ere death shall summon me."

With brow benign, like Him whose hand did wavering Peter guide,
The pastor bore his tottering frame through that translucent tide,
And plunged him 'neath the shrouding wave, and spake the triune name,
And joy upon that withered face in wondering radiance came.

And then advanced a lordly form in manhood's towering pride,
Who from the gilded snares of earth had wisely turned aside,
And following in His steps who bowed to Jordan's startled wave,
In deep humility of soul, this faithful witness gave.

Who next? A fair and fragile form in snowy robe doth move,
That tender beauty in her eye that wakes the vow of love;
Yea come, thou gentle one, and clothe thyself with strength divine:
This stern world hath a thousand darts to vex a breast like thine.

Beneath its smile a traitor's kiss is oft in darkness bound:
Cling to that Comforter who holds a balm for every wound;
Propitiate that Protector's care who never will forsake,
And thou shalt strike the harp of praise even "when thy heart strings break."

Then, with a firm, unshrinking step, the watery path she trod,
And gave, with woman's deathless trust, her being to her God;
And when, all drooping from the flood, she rose like lily's stem,
Methought that spotless brow might wear an angel's diadem.

Yet! more Yet more! How meek they bow to their Redeemer's rite,
Then pass with music on their way, like joyous sons of light!
But, lingering on those shores, I staid till every sound was hushed,
For hallowed musings o'er my soul like spring swoln rivers rushed.

"'Tis better," said the voice within, "to bear a Christian's cross,
Than sell this fleeting life for gold, which death shall prove but dross.
Far better, when yon shrivelled skies are like a banner furled,
To share in Christ's reproach, than gain the glory of the world."

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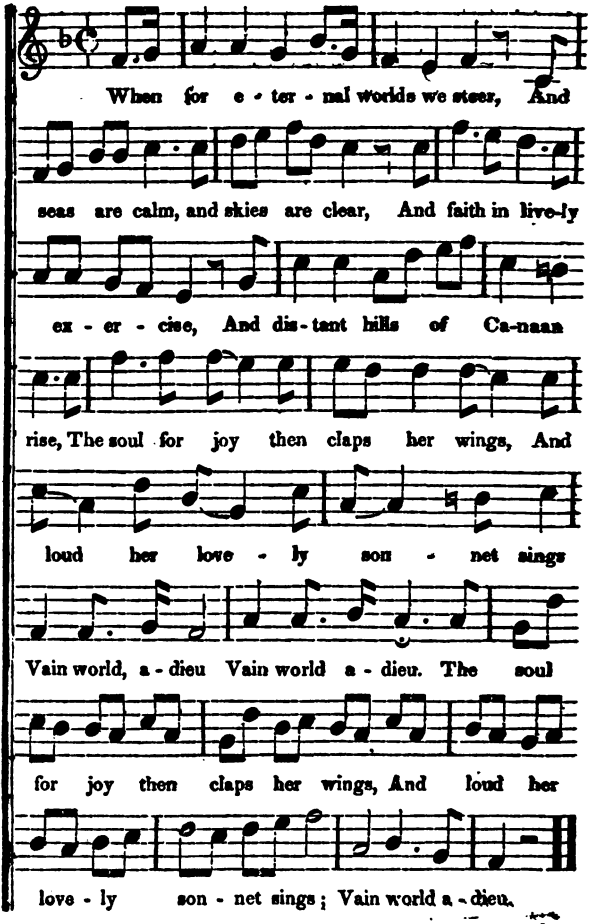
When for e - ter - nal worlds we steer, And
seas are calm, and skies are clear, And faith in live-ly
ex - er - cise, And dis-tant hills of Ca-naan
rise, The soul for joy then claps her wings, And
loud her love - ly son - net sings
Vain world, a - dieu Vain world a - dieu. The soul
for joy then claps her wings, And loud her
love - ly son - net sings; Vain world a - dieu.

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VAIN WORLD, ADIEU.

1 When for eternal worlds we steer,
And seas are calm, and skies are clear,
And faith in lively exercise,
And distant hills of Canaan rise:
The soul for joy then claps her wings,
And loud her lovely sonnet sings,
Vain world, adieu.

2 With cheerful hope her eyes explore
Each landmark on the distant shore;
The trees of life, the pastures green,
The golden streets, the crystal stream;
Again for joy she claps her wings,
And loud her lovely sonnet sings,
Vain world, adieu.

3 The nearer still she draws to land,
More eager all her powers expand:
With steady helm, and free bent sail,
Her anchor drops within the vail:
Again for joy she claps her wings,
And her celestial sonnet sings,
Glory to God!

TIME.

How slowly and how silently doth Time
Float on his starry journey. Still he goes,
And goes, and goes, and does not pass away.
He rises with the golden morning, calmly,
And with the moon at night. Methinks I see
Him stretching wide abroad his mighty wing,
Floating for ever o'er the crowds of men,
Like a huge vulture with its prey beneath.
Lo! I am here, and Time seems passing on;
To-morrow I shall be a breathless thing—
Yet he will still be here; and the blue hours
Will laugh as gaily on the busy world,
As though I were alive to welcome them.

LINES.

The dew is on the morning flower,
The thrush has charmed his leafy bower,
The lark has pealed his choral loud
Where hangs in silvery wreaths the cloud,
The bees with saffron loads return,
To store with sweets their waxen urn,
And morn her upward car has driven
Along the crimson fields of heaven.

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To view thy works and not to know,
Father! whose goodness made them so;
To hear thy sylvan minstrelsy,
And not to breathe a thought to Thee;
To see Thy fingers deck the sky,
With every tint that charms the eye,
And not Thy greatness there to read,
Argues a soul that's blind indeed.

NIGHT.

When night spreads her pinions o'er earth and o'er ocean,
And silence sits brooding on mountain and sea,
'Tis the hour, mighty God, that most favors devotion,
When our thoughts undisturb'd hold communion with Thee

It is sweet when at midnight from slumber I waken.
To know in its darkness Thou'rt present with me;
In its deep solemn stillness when lone and forsaken,
To feel myself safe in depending on Thee!

'Tis at night when undazzled by earth's empty splendor,
Our spirits unfettered soar ardent and free;
It is then that our noblest devotion we render,
And our thoughts, Holy God! ascend purest to Thee!

Still when night spreads her pinions o'er earth and o'er ocean,
In its silence, my God! be thou present with me;
In my breast to rekindle the flame of devotion,
And refine every thought ere it rises to Thee!

SONNET.

ON FINDING A BROOK DRIED UP.

Gone?—Ah how transient! but the other day
I stood upon thy brink, and like a child
Rejoiced to see thee bubbling on thy way,
Thy ripples glittering in the morning ray,
Which drank thy waters, while it brightly smil'd,
And ruined thee, as man hath often done
To the poor victim, whom his smile hath won.

Thy waters are dispersed, thy bed is dry
And cheerless, for no verdure there is seen;
O may my life not flow as idly by
Wasting its force in noisy vanity,
Nor leave one flower to show that it hath been;
For soon its stream must disappear like thee,
And join eternity's unbounded sea.

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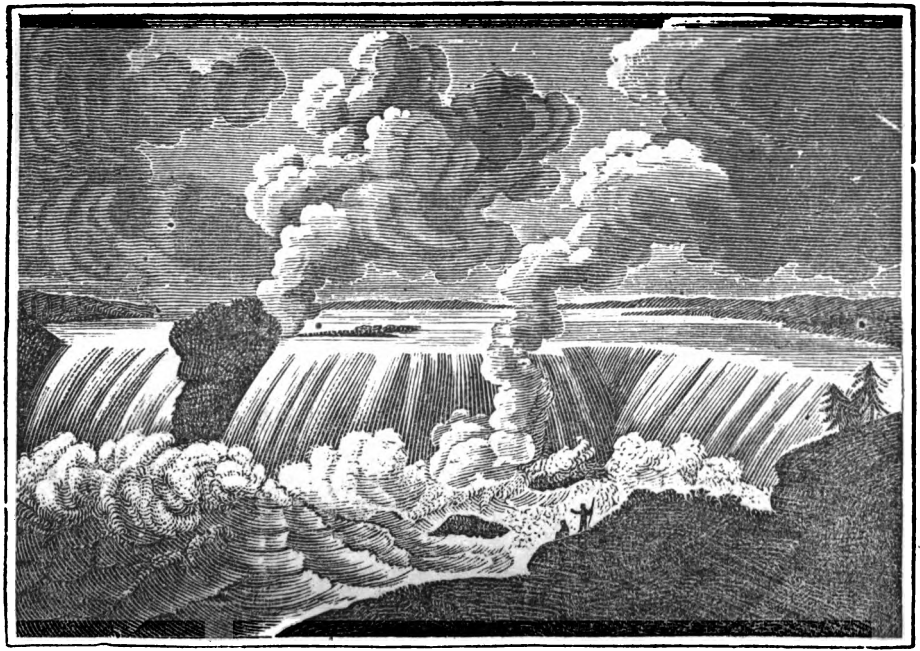

FALLS OF NIAGARA.

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THE

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Entertaining Knowledge.

VOL. III. SEPTEMBER, 1832. No. 4.

FALLS OF NIAGARA.

BY REV. F. W. P. GREENWOOD.

The voice of the Lord is upon the waters; the voice of the glorious God; the Lord thundereth over the great waters.—[Psalm xxix. iii. *Old Translation.*

THERE is a power and beauty, I may say a divinity, in rushing waters, felt by all who acknowledge any sympathy with nature. The mountain stream, leaping from rock to rock, and winding, foaming, and glancing through its devious and stony channels, arrests the eye of the most careless or business-bound traveller; sings to the heart and haunts the memory of the man of taste and imagination, and holds, as by some undefinable spell, the affection of those who inhabit its borders. A waterfall, of even a few feet in height, will enliven the dullest scenery, and lend a charm to the loveliest; while a high and headlong cataract has always been ranked among the sublimest objects to be found in the compass of the globe.

It is no matter of surprise, therefore, that lovers of nature perform journies of homage to that sovereign of cataracts, that monarch of all pouring floods, the Falls of Niagara. It is no matter of surprise, that, although situated in what might have been called, a few years ago, but cannot be now, the wilds of North America, five hundred miles from the Atlantic coast, travellers from all civilized parts of the world have encountered all the difficulties and fatigues of the path, to behold this prince of waterfalls amidst its ancient solitudes, and that, more recently, the broad highways to its do-

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minions have been thronged. By universal consent, it has long ago been proclaimed one of the wonders of the world. It is alone in its kind.—Though a waterfall, it is not to be compared with other waterfalls. In its majesty, its supremacy, and its influence on the soul of man, its brotherhood is with the living ocean and the eternal hills.

I am humbly conscious that no words of mine can give an adequate description, or convey a satisfactory idea, of Niagara Falls. But having just returned from a visit to them,* with the impression which they made upon my mind fresh and deep, I may hope to impart at least a faint image of that impression to the minds of those who have not seen them, and retouch, perhaps, some fading traces in the minds of those who have. And if I can call the attention of any to this glorious object as a work of God, and an echo of the voice of God: if by any thing which I may fitly say of it, I can quicken the devotion of one breast, I shall feel that I have not unworthily expressed my sense of obligation for having been permitted to behold it myself.

I will not begin my description with the cataract itself, but take you back to the great lake from which the Niagara flows, so that you may go down its banks as I did, and approach the magnificent scene with a knowledge regularly and accumulatively gained of its principal accessaries. For the river and the lake, nay, the whole superb chain of rivers and lakes, should be taken into view, when we would conceive as we ought of the Falls of Niagara.

As we approach the town of Buffalo, which is situated near the eastern extremity of Lake Erie, that wide-spread sheet of water opens to the sight. If the traveller has never seen the ocean, he may here imagine that he sees it. If he has, he will say that it is a sea view which here lies before him. As he looks to the west, the horizon only bounds the liquid expanse; and it is not till he descends to the shore, and marks the peculiar, quiet, and exact level of the even and sleeping lake, that he will find any thing to remind him that he is not on the coast of the salt and swelling sea. Four miles

* The visit was made with some friends in July, 1831.

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north from Buffalo we come to the village of Black Rock,* and it is here that the boundaries of the lake contract, and its waters begin to pour themselves out through the sluiceway of the Niagara river. The river is at this place about a quarter of a mile broad; and, as I gazed on its dark and deep and hurrying stream, I felt a sensation of interest stealing over me, similar to that which I have experienced in reading of the preparations of men for some momentous expedition. Opposite Black Rock, on the Canada side, is the village of Waterloo, to which we were ferried over, and from which we commenced our ride down the river, which runs north into Lake Ontario. There is also a road on the American side, from Buffalo to the Falls, a distance, either way, of about fifteen miles.

From Waterloo we pass on by a level road, immediately on the western bank of the Niagara, and observe that the river continually becomes wider, till at length it divides into two streams, which sweep round an island several miles in length. They then unite again, forming one stream as before, only that it is increased in breadth and swiftness. And now the interest thickens, and begins to grow intense. Hitherto we had been travelling on the side of a large river, it is true, but one not much distinguished otherwise, either by its motion, its shape, or the beauty of its borders. We are obliged to call on ourselves to consider where we are, and whither we are going; for Niagara itself seems unconscious of the grand associations with which it is freighted. It moves as if unmindful, or as not caring to put the traveller in mind, that its waters have come down through the whole length of Erie from the far away Huron, Michigan, Superior; that they are just about to rush over the wondrous precipice below, and then are to hasten forward into another majestic lake, and from it are to pass through the portals of a thousand islands, and the alternate rapids and lakes of a noble and romantic river, washing the feet of cities,† and so to flow on into

* According to Mr. Featherstonhaugh, Editor of the Monthly American Journal of Geology and Natural Science, the 'seams and patches of dark-colored chert contained in the beds of carboniferous limestone,' have furnished its name to this village.

† Montreal and Quebec are both on the St. Lawrence.

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the all-receiving sea. We are obliged to remember this, I say; for the unpretending waters, though pressing forward continually and intently, have thus far told us nothing, themselves, of their long pilgrimage behind, or the yet more eventful journeys before them. But here, as they are meeting round Grand Island, they break their silence and speak, and the whole scene becomes full of spirit and meaning. Here, about three miles from the Falls, you see the white crested rapids tossing in the distance before you. Here, even in the most unfavorable state of the weather, you hear the voice of the cataract, pervading the air with its low, monotonous, continuous roar. And here you see a column of mist rising up, like a smoke in distant woods, and designating the sublime scene over which it is immediately hanging. I know not that I was afterward more strongly affected, even by the Falls themselves, than I was by the sight of this ever changing and yet never absent guide, this cloudy pillar, this floating, evanescent, and yet eternal testimony, which pointed out to me the exact spot which had been for so many years as a shrine to thousands; which I had heard of and read of so long, and which I had myself so often visited, though not in person, yet with my reverential wishes, with my mind, and with my heart. Childhood came back to me, with its indistinct, but highly wrought and passionate images, maps were unrolled, books were opened; paintings were spread; measurements were recalled; all the efforts which the art of man had made, all the tributes which his spirit had offered, at the call of the great cataract; all these associations, with other dream-like thoughts of the wilderness, the lake, and the stream, rose up unbidden and with power within me, as I steadfastly regarded that significant, far off mist, and knew that I, too, was soon to stand on the consecrated spot, and see, and feel.

A mile or two is soon passed, and now we turn a little from the road to the right, in order to have a new view of the rapids. These occupy the whole breadth of the river, from shore to shore, and extend half a mile back from the Falls, and are formed by the rush of the entire body of waters down a rough bed, the descent of which in the course of this half mile is fifty feet. Here all is tumult and impetuous haste. The view is something

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like that of the sea in a violent gale.—Thousands of waves dash eagerly forward, and indicate the interruptions which they meet with from the hidden rocks, by ridges and streaks of foam. Terminating this angry picture, you distinguish the crescent run of the British Fall, over which the torrent pours and disappears. The wilderness and the solitude of the scene are strikingly impressive. Nothing that lives is to be seen in its whole extent. Nothing that values its life, ever dares venture it there. The waters refuse the burden of man, and of man's works. Of this they give fair and audible warning, of which all take heed. They have one engrossing object before them, and they go to its accomplishment alone.

Returning to the road, we ride the last half mile, ascending gradually, till we come to the public house. A footpath through the garden at the back of the house, and down a steep and thickly wooded bank, brings us upon Table Rock, a flat ledge of limestone, forming the brink of the precipice, the upper stratum of which is a jagged shelf, no more than about a foot in thickness, jutting out over the gulf below. Here the whole scene breaks upon us. Looking up the river, we face the grand crescent, called the British or Horseshoe Fall. Opposite to us is Goat Island, which divides the Falls, and lower down to the left, is the American Fall. And what is the first impression made upon the beholder? Decidedly, I should say that of beauty; of sovereign, majestic beauty, it is true, but still that of beauty, soul-filling beauty, rather than of awful sublimity. Every thing is on so large a scale; the height of the cataract is so much exceeded by its breadth,* and so much concealed by the volumes of mist which wrap and shroud its feet; you stand so directly on the same level with the falling waters; you see so large a portion of them at a considerable distance from you; and their roar comes up so moderated from the deep abyss, that the loveliness of the scene, at first sight, is permitted to take precedence of its grandeur. Its coloring alone is of the most exquisite kind. The deep sea-green of the centre of the crescent, where it is probable the greatest

* The height of the Horseshoe Fall is 150 feet; its breadth 2378 feet.

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mass of water falls, lit up with successive flashes of foam, and contrasted with the rich, creamy whiteness of the two sides or wings of the same crescent; then the sober gray of the opposite precipice of Goat Island, crowned with the luxuriant foliage of its forest trees, and connected still further on with the pouring snows of the greater and less American Falls; the agitated and foamy surface of the waters at the bottom of the Falls, followed by the darkness of their hue as they sweep along through the perpendicular gorge beyond; the mist, floating about and veiling objects with a softening indistinctness; and the bright rainbow which is constant to the sun—altogether form a combination of color, changing too with every change of light, every variation of the wind, and every hour of the day, which the painter's art cannot imitate, and which nature herself has perhaps only effected here.

[*To be concluded.*]

ATTRIBUTES OF MAN.

Extract from an oration delivered at Madison College, Penn., by the Rev. H. B. Bascom.

Man is, perhaps, the most singularly constituted being in the high scale of heaven's mysterious workmanship; and if we except the heavenly intelligences, he stands pre-eminent among all the works of God. Uniting in himself a thousand modifications of matter and the endless varieties of mind; by his material part connected with things terrestrial; by the immaterial claiming alliance with a higher and nobler world above; mortal and immortal in his complex nature; tending to the tomb, and yet superior to its ravages; ever converging to corruption and the darkness of the grave, and yet conscious of undying energies within—he presents us with a problem in the science of being, the solution of which can only be realized in a direct communication from the Creator to the creature—of whose mysterious formation and attributes we are now speaking. Man seems in himself to unite the diversities of created nature, and stands forth not unaptly to the contemplation of intelligence as an epitome of being—an abridgement of the universe! Of the primitive condition and ultimate destination of man it cannot be necessary for us to speak

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at length here. Nature, tradition, and inspiration unite in their testimony, that he left the hand of the Creator combining in himself the elements of an existence splendid in its structure and boundless in prospect.

Endued with the high and distinguishing attributes of intelligence, volition, and emotion, man is distinguished as occupying the summit of creation's visible pyramid, and prepared to move forward forever with firm and unfettered tread in the paths of virtue, of science, and of moral illumination.

The phenomena attendant upon the original formation of man stamped upon him the signature of his value, and intimated in no obscure way the part he was to act in the great drama of existence. The manifestations of nature, his own consciousness, and the affirmation of the Being who made him, all gave notice that he was destined to run a high career amid the eventful and unknown fortunes of creation.

Man's intellectual dominion is almost without limit. His knowledge of the present, compared with the past, and reaching forward to the future, enables him to *arrange* and *classify* important and kindred facts upon the grand principle of *induction*, and hand them down to future generations as the well-attested record of experience. New and more ample fields of discovery continually open before him, and he only ceases to learn with the termination of his earthly being. And, indeed, it is not at all improbable that the virtuous and good beyond the grave will continue to increase the sum of knowledge by observation, intuition, and intercourse, until *universal nature* shall be spread out before the eye of the heavenly inhabitant as a boundless exhibition of the infinite God! It is the distinguishing prerogative of man, while all the living creatures with which he finds himself surrounded are necessarily confined within the narrow and grovelling limits fixed and defined by instinct, to extend his researches beyond his own immediate wants and concerns, and delight and improve himself in the contemplation of the universe.

The wide and impressive prospects of this fair creation are all before him. The glory of the heavens, the beauty of the earth, and the grandeur of the ocean, the hill, the dale, the mine, the quarry, afford an intensity

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of delight, a force of appeal, calculated to improve and mend the heart. They all hold one common language, and that language is directed to man—the only terrestrial being who is capable of intelligent admiration.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

THE GREAT ASTRONMICAL MIRACLE.

Sun stand thou still upon Gibeon, and thou moon, in the valley of Ajalon.

[Illustrated by an explanatory plate.]

The stupendous miracle recorded in the book of Joshua, when the Prophet "said in the sight of Israel, Sun, stand thou still upon Gibeon, and thou moon in the valley of Ajalon," has for centuries been a fruitful subject of discussion and controversy. Scoffers and infidels have made it the pretext for impugning the authenticity of the scriptures, some asserting that so sudden a suspension of the most important motions in the universe would have produced irremediable confusion, and others declaring that as this miracle supposes the Earth to be the centre of the Solar system, which is, demonstrably, false philosophy, they find in it sufficient evidence that the history could never have been dictated by the Spirit of Truth. On the other hand, the ablest astronomers and Divines have laboured to show that the miracle was wrought without the production of any violent change in the known laws of nature, and that the terms employed in the text, when rightly understood, convey nothing contrary to the established principles of the true system of the universe. In presenting the present simple explanation to our youthful readers, we wish them to bear in mind that we do not pretend to say how the miracle was performed, but merely to show how easily the idle objections brought against it may be obviated; the endeavour to trace the operations of omnipotence is at all times innocent when made in a becoming spirit, with the full conviction that the God of nature is the master and not the servant of his own laws which he can suspend or alter as his unerring wisdom may see fit, and with an unwavering assurance that though our finite faculties may fail to discover how these things were done, yet were they so, because "the mouth of the Lord hath spoken it."

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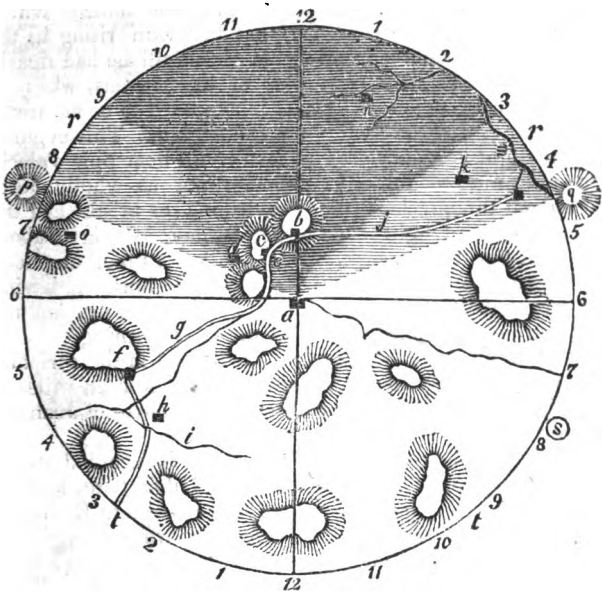

The preceding cut is intended to answer a double purpose. It is first a map showing the geographical situation and distances of the principal places upon the scene of the miracle. These are designated by letters and may be understood by turning to the references. It is also a dial, having the hours marked around it those during which the daylight and twilight continued being distinguished by the lighter shading from those of the night, to show what number of hours was required to unite the last daylight of the first day with the first daylight of the second, to make both days one centinuation of light; that being the time of the duration of the miracle.

a—Jerusalem
b—Gibeon.
c—Bethoron.
d—Ramah.
e—Gibeah.
f—Azekah.
g—line of retreat and pursuit.
h—Makkedah.
i—Brook Eschol.
j—Joshua's course.
k—Jericho
l—Gilgal.
m—River Jordan.
n—Ai.
o—Ajalon.
p—Sun setting.
q—Sun rising,
r r—Twilight.
s—Moon at sunsetting.
t t—Day
Numerals. 1. 2. 3. &c. the hours.

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The plate represents the supposed horizon which might be visible to Joshua; the Sun rising in the north east and continuing his course till he had nearly reached the north west part of the heavens, where at half past seven o'clock he is supposed to be naturally setting, and the twilight commencing. This evening twilight is represented as lasting till near nine o'clock, from nine till three in the morning as wholly dark; about three o'clock the day begins to break, and the morning twilight ends in perfect day, at sunrise about half past four o'clock. During all this time, the moon being nearly full, would be above the horizon, having risen about five or six o'clock in the evening, and not setting till about five o'clock the next morning.

The distance of the towns mentioned in the scripture narrative may be measured by a scale of ten miles to the inch, the white path marks the course of Joshua's army.

The passage in which the miracle is recorded stands verbally thus: "Joshua went from Gilgal; attacked the enemy at Gibeon; drove them to the ascent to Bethoron, to Azekah and Makedah. As they were *going down* to Bethoron, a violent hail storm overtook them and by this was the chief slaughter of them made. Then spake Joshua to the Lord, and he said in the eyes of Israel, "Sun on Gibeon continue, and moon, in the valley of Ajalon." The original words are taken to imply, not the bodies of the sun and moon, but their *light*, by which a day of twelve hours was lengthened out to twenty-four. What our translators have rendered the midst of heaven, is also translated the *divison*, which may mean the *horizon*, the grand natural division which strikes every eye, separating the *upper* from the *under* heavens. Ajalon is literally translated, the valley of Oaks. "Here the enemy was posted, probably among the oak trees, and here Joshua would naturally desire the moon to shine in order to distinguish and attack them. Two words in the original denote the delay of the great lights. "Solar rays upon Gibeon *stay*." The very phrase seems to imply that he was then upon the edge of the horizon, and his rays gilding the *hill* of Gideon. And the solar ray remained level and the lunar *stayed*," stood equally bright during the whole

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time of the miracle. Joshua must certainly have seen both luminaries at the instant he spoke, hence this could not have happened at the full moon, when she does not rise till the sun sets; nor at the new moon when her dark side being turned to the earth, she is invisible, and from that time till she enters her first quarter gives no available light. It being then nearly full moon, the sun as in the plate was nearly opposite to her in the heavens, which could only happen near the evening, when daylight was about to fail, and Joshua addressed his prayer to the Lord to lengthen out the day, by commanding the two great lights to stay their courses. He wanted more time to consummate the destruction of his enemies, and could never have put up such a petition at an early part of the day.

Again, as since Joshua crossed Jordan on the tenth day of the first month, he had subdued Jericho, Ai, &c. these operations must have taken up some months, perhaps three, which supposition brings us to midsummer, when the sun is in his highest northern station; when many days together are apparently of equal length, and the sun, even in Judæa, would be fifteen hours above the horizon; adding to which an hour and a half each for the morning and evening twilight, would make eighteen hours of natural light; so that to maintain the solar light six hours, until it would naturally have risen again in the morning would answer the nature and purposes of this miracle.

At noon day the light of the moon could not be wanted; while, in the absence of the sun, at or near her full, it would shine with great brightness, giving light quite sufficient for military purposes. If therefore we suppose her to have risen at five in the afternoon, she would begin to be bright about the time of sunsetting, and increasing her light till the hour of eight, would continue shining from that hour till superseded by the rising of the sun. From this it appears, there was no necessity that the moon should be confined to only one part in the heavens, she might traverse the whole heavens during this night transformed to day. Now if the sun did so revolve all night on the edge of the horizon, as he is well known to do during many weeks together, during the polar summer, he must have affor-

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ded a light to the hemisphere below the horizon, in very nearly the same degree; relieving the inhabitants from the double night they would otherwise have had to pass through, and giving the Antipodes of Joshua an almost equal share of light with that which he enjoyed. Had so remarkable a circumstance occurred, some traces of it would of course be expected in the records of the more polished nations and the traditions of the less civilized. Accordingly in the Chinese annals, and the Greek historian Herodotus, this great event appears to be pointed out, obscurely to be sure, but with sufficient distinctness to corroborate this stupendous fact.

HISTORICAL AND PHYSICAL GEOGRAPHY OF THE HOLY LAND—No. VII.

VALLIES AND PLAINS.

Numerous VALLIES are mentioned in Scripture: the three most memorable of these are,

1. The VALE OF SIDDIM, in which Abraham discomfitted Cherdorlaomer, and his confederate emirs or kings. Gen. xiv. 2—10.

2. The VALLEY OF ELAH, which lies about three miles from Bethlehem on the road to Jaffa: it is celebrated as the spot where David defeated and slew Goliath. (1 Sam. xvii.) "Nothing has ever occured to alter the appearance of the country. The very brook whence David *chose him five smooth stones* has been noticed by many a thirsty pilgrim, journeying from Jaffa to Jerusalem; all of whom must pass it in their way."

3. The narrow VALLEY OF HINNOM lies at the foot of Mount Sion, and is memorable for the inhuman and barbarous, as well as idolatrous worship, here paid to Moloch; to which idol parents sacrificed their smiling offspring by making them pass through the fire. (2 Kings xxiii. 10. 2 Chron. xxviii. 3.) To drown the lamentable shrieks of the children thus immolated, musical instruments (in Hebrew termed *Tuph*) were played; whence the spot, where the victims were burnt, was called Tophet. From the same circumstances Ge-Hinnom (which in Hebrew denotes the *Valley of Hinnom*, and from which the Greek word Γέεννα, *Gehenna*, is derived,) is sometimes used to denote hell or hell-fire.

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The country of Judæa, being mountainous and rocky, is full of CAVERNS; to which the inhabitants were accustomed to flee for shelter from the incursions of their enemies, Judg. vi. 2. 1 Sam. xiii. 6. xiv. 11.) Some of these caves were very capacious: that of Engedi was so large, that David and six hundred men concealed themselves in its sides; and Saul entered the mouth of the cave without perceiving that any one was there.

Numerous fertile and level tracts are mentioned in the sacred volume, under the title of PLAINS. Three of these are particularly worthy of notice, viz.

1. The PLAIN OF THE MEDITERRANEAN SEA, which reached from the river of Egypt to Mount Carmel.

2. The tract between Gaza and Joppa was simply called the PLAIN: in this stood the five principal cities of the Philistine satrapies, Ascalon, Gath, Gaza, Ekron or Accaron, and Azotus or Ashtod.

3. The Plain of Jezreel or of Esdraelon, also called the GREAT PLAIN (the Armageddon of the Apocalypse): it extends from Mount Carmel and the Mediterranean to the place where the Jordan issues from the Sea of Tiberias, through the middle of the Holy Land. This plain is enclosed on all sides by mountains, and is cultivated.

JUDEA.

When you travel in Judea, the heart is at first filled with profound disgust; but when, passing from solitude to solitude, boundless space opens before you, this disgust wears off by degrees, and you feel a sacred awe, which, so far from depressing the soul, imparts life, and elevates the genius. Extraordinary appearances every where proclaim a land teeming with miracles; the burning sun, the towering eagle, the barren fig-tree, all the poetry, all the pictures of scripture are here. Every name commemorates a mystery; every hill re-echoed the accents of a prophet. God himself has spoken in these regions: dried up rivers, riven rocks, half open sepulchres, attest the prodigy: the desert still appears mute with terror, and you would imagine that it had never presumed to interrupt the silence since it heard the awful voice of the Eternal.

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MOUNT SINAI.

THIS most memorable mountain, upon which Moses was permitted to speak with God himself, and to receive the Decalogue from the hands of the Almighty, stands in a kind of peninsula formed by the arms of the Red Sea, one extending northward, called the Gulph of Kolsum, and the other extending east, called the Gulph of Elan. The Arabs call it Gibel Moessa the mountain of Moses, or by way of eminence El Tor, The Mountain. The wilderness of Sinai, where the Israelites encamped almost a year, and where Moses erected the Tabernacle of the Covenant, is considerably elevated above the rest of the country; the ascent to it is very rocky, and the wilderness itself consists of a plain, nearly twelve miles long, on all sides surrounded by rocks and eminences. The adjacent country appears as if it had been an ocean of lava, which, while it was running literally mountains high, had been suddenly commanded to stand still! Towards the nothern extremity of this plain appear two high mountains, the highest is Sinai, the other Horeb, which stands west of Sinai, the shadow of which at sun-rise, covers Horeb. Sinai is at least a third part higher, the ascent to it being calculated to be fifty thousand steps. They are both of very steep ascent, and occupy very little ground, in comparison with their extraordinary height. There is a fountain of water at the top of Sinai, and

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another at the foot of Horeb. The monastery here represented stands upon Mount Sinai, the awful cliffs of which rise behind it in appaling grandeur. It is said to occupy the site of a tower, formerly erected upon or near the spot where Moses saw the burning bush, on which account, the architect who built it, was put to death by the Emperor Justinian, who had allowed some Greek monks to erect this building as a defence against the Arabs. For the greater security, there is no gate or door to the whole structure, those who enter or go out, being drawn up and let down by a small basket, suspended by a rope, as is shown in the cut. Near this monastery the monks profess to shew the very stone from which the water gushed upon its being struck by Moses; and, in the adjoining garden, which contains some olive, almond, and cypress tress there is a shrub absurdly said to have been planted by Moses himself. Here also the same persons shew the supposed place where Elijah was fed by the ravens; and above that, the spot whence Moses surveyed the battle between Joshua and Amalek; above all, they venture to call a natural cave, the cleft of the rock in which Moses was put, when he requested permission to behold the glory of the Almighty. (*Exod.* xxxiii. 18—23.)

Whoever toucheth the mount (Sinai) *shall be surely put to death* (*Exod.* xix. 12.) This mountain was awfully sacred, because the dreadful Majesty of God was displayed upon it. It was necessary that God should give the Israelites at large some particular evidence of his Being and power, that they might be saved from idolatry, to which they were most deplorably prone, and that they might the more readily credit Moses, who was to be the constant Mediator between God and them. God therefore, in his indescribable Majesty, descended on the mount, and by the thick dark cloud, the violent thunders, the vivid lightnings, the long and loud blasts of the trumpet, the smoke encompassing the whole mountain, and the tremendous earthquake, proclaimed his power, his glory, and his holiness, so that the people, however unfaithful and disobedient afterwards, never once doubted the Divine interference, or suspected Moses of any cheat or

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imposture. Indeed, so absolute and unequivocal were the proofs of supernatural agency, that it was impossible to attribute these appearances to any cause, but the unlimited power of the Author of Nature, who suffered Moses, only as a type of Christ, to come into His fearful presence, shewing, that no soul can approach so holy and terrible a Being as Himself, except through a *Mediator*. See *Heb.* chap. xii. 18—24, where the apostle's design is to shew, that the dispensation of the Law was calculated to produce terror, it being most awful and exclusive, belonging only to the Jewish people, who found it a burthen, which they were unable to bear: while the gospel dispensation is a light and easy yoke, embraces the whole human race, breathes nothing but Divine love and mercy, and is most gloriously adapted, not merely to correct the outward conduct, but to renew the heart and, thereby to secure the present and eternal happiness of mankind.

THE HEART.

The heart—the gifted heart—
Who may reveal its depths to human sight!
What eloquence impart
The softness of its love—the grandeur of its might.
It is the seat of bliss—
The blessed home of all affections sweet;
It smiles where friendship is—
It glows where social feelings meet.
'Tis Virtue's hallowed fane—
'Tis Freedom's first, and best, and noblest shield!
A strength that will remain,
When grosser powers and feebler spirits yield!
It is Religion's shrine,
From whence our holiest aspirations wing;
Where joys, which are divine,
And hopes, which are of heaven, alone may spring!
The fount of tenderness—
Where every purer passion has its birth,
To cheer—to charm—to bless—
And sanctify our pilgrimage on earth.
Oh, heart! till life be o'er,
Shed round the light and warmth of thy dear flame,
And I will ask no more
Of earthly happiness, or earthly fame!

Wisdom is made up of two parts—wise sayings and wise doings. To direct others to go right and never go right ourselves makes us resemble guide-posts, pointing onward, but ever standing still.

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SIR ISAAC NEWTON'S HOUSE.

Every memorial of so great a man as Sir Isaac Newton, says his late biographer, has been preserved and cherished with peculiar veneration. His house at Wallsthrope has been religiously protected by Mr. Turner of Stroke Rocheford the proprietor. It is built of stone, like the houses generally in that quarter, and is a remarkably good one. It was repaired in 1793 when a table of white marble was put up by Mr. Tur ner in the room where Sir Isaac was born, with the following inscription:

"Sir Isaac Newton, son of John Newton, Lord of the manor of Wallsthrope, was born in this room, on the 26th of December, 1642.

Nature and Nature's laws lay hid in night,
God said, 'let Newton be,' and all was light."

The following lines have been written on the house;

"Here Newton dawned, here lofty wisdom woke,
And to a wondering world divinely spoke.
If Tully glowed when Phædrus' steps he trode,
Or fancy formed philosophy a God;
If sages still for Homer's birth contend,
The sons of science at this dome must bend.
All hail the shrine! all hail the natal day!
Can boast his noon—this Cot his morning ray."

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TOPOGRAPHICAL SKETCHES.

RUINS OF THE GENESSEE BRIDGE.

THE Genessee river passes through the flourishing village (we had almost said city) of Rochester in the state of New-York. There are two grand bridges thrown across the stream which unite the opposite sections of the village. A little below the town the river is precipitated down a precipice of ninety-six feet; and a mile and a half further down it falls into another chasm of seventy-six feet in depth. It is near this lower fall that the ruins of the Old Genessee bridge are seen perched like castles of the air on either side of the river. All around this site are seen the marks of desolation. The forsaken village of Carthage is perched upon the edge of a most tremendous gulf.

A traveller thus describes the scenery:—descending a declivity of the verge of the broad and deep gulf, in the bottom of which could be seen the river dwindled in appearance to a little brook, I obtained a partial view of the Lower Fall, and observed the remaining butments of that wonderful "flying bridge," which the enterprising inhabitants of Carthage long since threw in one astonishing arch, from the summit of one bank to the other. The building of this bridge is one of the great Archimidean undertakings of the modern age. When told of these remaining butments, I expected to find them substantially constructed of stone, properly fitted to receive the bulky beams of the arch; instead of which, there stood close upon the crumbling brink, on either side, a rickety frame-work, more like a skele.on than the support of a bridge. Judging from the butment, the undertaking must have been airy indeed: and in confirmation of this, a gentleman informed me, (creditably perhaps,) that a sudden gust of wind on a blustering day lifted the bridge from its two extremes, and carrying it through the air, laid it upside down, in the bottom of the gulf, where the spring current of the Genessee soon bore it in triumph into lake Ontario! The toll-gate, closed, and the toll-keeper's house are still standing, and look as if lately built; which might prove that the bridge did not fall through age. From the surface of the river to the arch, was one hundred and ninety-eight

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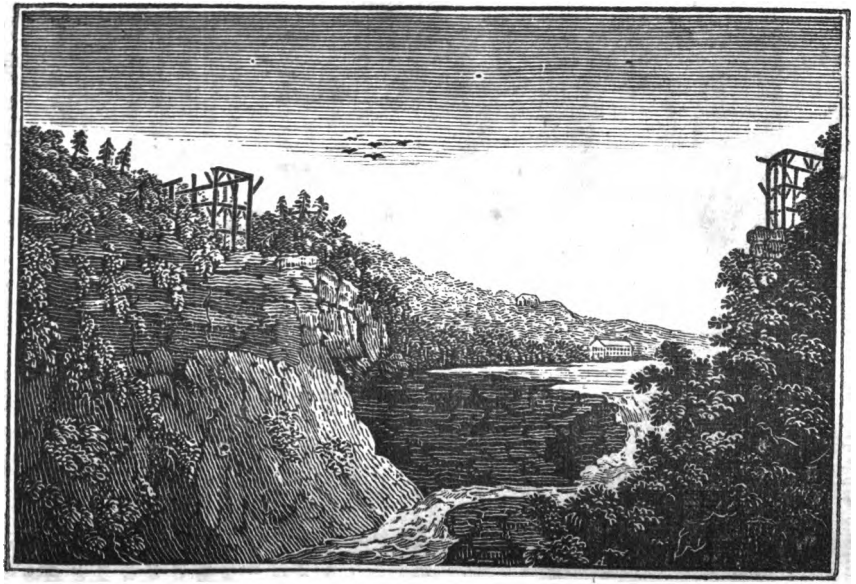

RUINS OF GENESSEE BRIDGE.

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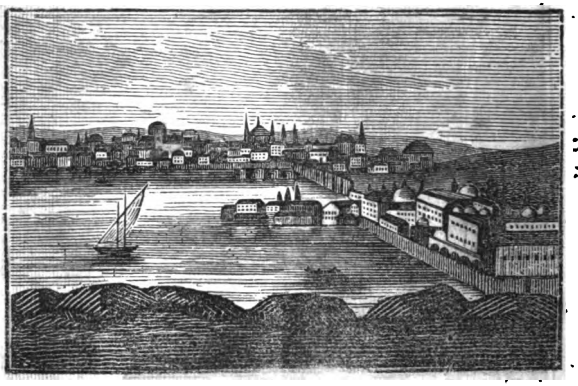
feet. During its erection, an overseer fell from the top and dashed himself to pieces.

Down a gulley which rains have worn in the bank, a path winds to the bottom, where a fine view is to be had of the Lower Fall. The water with a loud roar and considerable spray, rolls down a broken and contracted part of a ledge, similar, in some degree, to that of the Upper Falls, with the exception of its being much more uneven. High over our heads the stupendous sides of the chasm rise to a terrifying elevation, and the distant butments rear their outstretched arms to the skies, tottering aloft upon the wind-shaken brows of each precipice. Alternate layers of earth and bright blue clay, with intermediate strata of slate, curl in beautiful parti-colored stripes around the banks, rendered more striking by a pleasing admixture of ragged evergreens and overhanging bushes. Adjoining the fall a spacious arched grotto is deeply scooped, under which the water so lately turbulent, finds rest in a deep, silent, revolving pool.



CONSTANTINOPLE.

The ancient city of Byzantium, which had been destroyed by Severus, in the early part of the 4th century, was rebuilt by Constantine the Great, who enlarged and adorned it with splendid fountains, squares, and palaces. The new city was consecrated by the emperor, in person, in the year 330; it received his name, and was made

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the capital of the empire. Situated on the sea of Marmora, at the mouth of the Thracian Bosphorus, between the Black Sea and the Archipelago, Constantinople speedily became the mart of extensive commerce; thither all the wealth of the empire was attracted, and thither all the nations of the earth resorted with their tribute and their trade. The new capital soon rose into successful rivalry with the old, and Rome, the ancient mistress of the world, sunk from her proud supremacy. For more than eleven hundred years, Constantinople continued the seat of empire in the East, and since 1553, when it was taken by Mohammed, it has been the capital of the Turkish dominions and the residence of the Turkish Sultans.

Constantinople is beautifully situated. It is built in the form of a triangle, upon gradually rising ground, and its whole extent may be seen at a single glance from the sea or the adjacent hills, presenting an appearance not surpassed in magnificence by that of any city in the world. From the heights of Scutari it is perhaps seen to the best advantage. Here, in one grand panorama, we have, on the sea side, the snow-white Seraglio, surrounded with its walls and flanked with towers,—directly opposite upon the harbor, the suburb of Galata, the residence of the European merchants, surrounded by a wall of its own,—farther on, Tophana with its cannon founderies,—and opposite Galata and Tophana, charmingly situated on the heights, the beautiful suburb of Pera with the palaces of the European ambassadors and the open burying ground of the Franks. On the south-west side is the fortress of the Seven Towers, and in the same quarter the Arsenal, the Navy Yard, the Bagnio and the Prison of the Galleys. The city, without including the suburbs, is about 12 miles in circumference; including the suburbs, it is more than 50 miles in circuit. The suburbs are for the most part open, but some of them are surrounded by old walls built by the Greeks and Genoese. The harbor of Constantinople will hold 1,200 ships. Some idea of the number of houses may be formed from the fact that 30,000 have been destroyed by fire in a day without materially changing the aspect of the city. The number of streets has been estimated to be 4,000. The population is

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about 1.000,000, of whom one half are Turks, and the remainder Greeks, Armenian Christians, and Jews.

There are in Constantinople many ancient monuments still remaining. Among these is the church of St. Sophia, the oldest and most remarkable in the city. This church, which was founded by Justinian, is now a Mosque, and no one who is not a Mussulman is allowed to enter it, without the express permission of the Sultan. The Mosques are about 500 in number, and there are 5,000 oratories. Besides the Greeks have 23 churches, and the Catholics 9, the Armenians 3, and the Russians 1.—Besides its many splendid and spacious mosques, this city can boast of hospitals, alms-houses, schools, colleges, and public libraries, such as rival the rich institutions founded by the Caliphs of Bagdad and Cairo, and would not suffer by comparison with those of many European cities.

Among the establishments characteristic of the place, we may mention the coffee-houses, where persons of all classes meet together to smoke, and drink coffee—the opium booths, where the guests assemble in the evening to enjoy the intoxicating influence of that pernicious drug—the baths which, in luxurious arrangements, surpass all others in the world—the slave market, where the most beautiful girls are brought from Georgia and Circassia, Mingrelia, Greece and Candia—and lastly, the Bazaars, where the dealers in particular articles carry on their business by themselves. The Bazaars are large buildings of stone, where the wealthy Turks deposit their property, and where wholesale business is carried on. The retail Bazaars are rows of shops on each side a covered street, where almost any thing may be purchased, and where the article is often manufactured as well as sold. Here "Sedate Turks, Saturnine Armenians, swaggering Ghaliyonjis, saucy Franks, thin bearded Arabs, Bostanjis, with their long-tailed scarlet caps, Dervishes, crowned with dirty caps that look like extinguishers, are all crowded together, each driving his own bargain, and betraying by his physiognomy the characteristic of his nation, calling, and habits."

This city has been besieged twenty-four times, but taken only six, viz. by Alcibiades, Severus, Constantine, Dandelo, Michal Palæologus, and Mohammed.

New-York, September, 1832.

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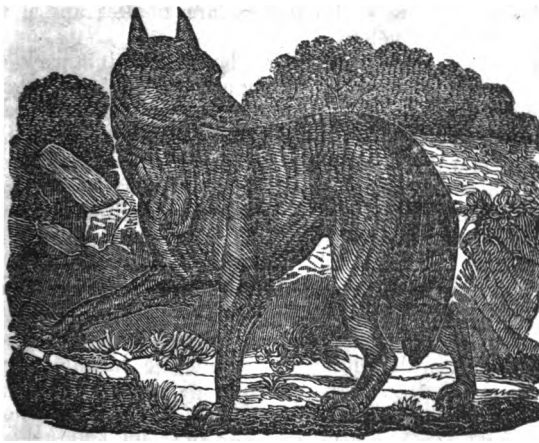

THE JACKAL.

We meet with various passages in the sacred writings, in which mention is made of the Fox, although we know from the reports of travellers that this animal is but rarely met with in Palestine. The reason of this apparent difficulty is, that the animal called in scripture Sheeal, and rendered in our English translation, Fox, is in fact the Jackal of the East, which is found in prodigious numbers in Arabia, Palestine and Egypt, scouring the plains in packs, or concealed by hundreds in the gardens and among the tombs and rivers.

The Jackal is about the size of a middling dog, to which it bears no slight resemblance. Indeed, though the species of the wolf and dog approach each other very nearly, the Jackal seems, in some respects, to occupy an intermediate place. It unites the fierceness of the wolf with the familiarity of the dog, and its cry is made up of the howl of the former and the bark of the latter, mingled with a cry of lamentation resembling that of human distress. In the chase it is as noisy as the dog, and in its appetite as voracious as the wolf. There are several varieties of the animal, differing from each other chiefly in size and colour, those of the warm-

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est climates being large and of a reddish brown colour, while those from colder regions are smaller and of a beautiful bright yellow.

The Jackal never goes alone, but always in a pack of forty and fifty together. They are not afraid of mankind, but pursue their game to the very doors without the slightest signs of apprehension. They enter instantly into the sheepfolds, the yards, and the stables, and, when they can find nothing else, devour the leather harness, boots and shoes, and run off with what they have not time to swallow. They not only attack the living but the dead. They scratch up with their feet the new-made graves, and devour the corpse, how putrid soever. In those countries, therefore, where they abound, they are obliged to beat the earth over the grave and mix it with thorns, to prevent the Jackals from scraping it away. They always assist each other in this horrid work, uniting in a mournful cry, resembling that of children under chastisement; and when they have thus dug up the body, they share it amicably between them. These animals combine together every day, not only for the purposes just mentioned, but also for mutual assistance appertaining to the chase. When thus united in packs, the largest animals are not safe from their attack. They follow armies, and keep in the rear of caravans. They prey upon every thing that has once had animal life; the most putrid matter seeming equally acceptable with the most fresh. They are, in fact, the vultures of the quadruped kind.

During the day the Jackals hide themselves in holes, and seldom appear abroad till night-fall. Then they sally forth in troops, and having scented their prey, they pursue it the whole night with unceasing assiduity and perseverance, keeping up a horrid howl until they run down the victim.

The Lion, the Tiger, and the Panther, whose appetites are superior to their swiftness, attend to the Jackal's cry, and just as it supposes itself about to enjoy the fruits of its labour, one of these animals comes in, satiates himself upon the spoil, and leaves his poor provider a scanty remnant for his pains.

Of the numerous passages in scripture in which this animal is mentioned, we will cite but one. In Judges

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xv. 4, 5, we read, that "Samson went and caught three hundred foxes, and took firebrands, and turned tail to tail, and put a firebrand in the midst between two tails; and when he had set the brands on fire, he let them go into the standing corn of the Philistines, with the vineyards and olives." We have cited this passage for the purpose of remarking, that the *Vulpinaria*, or feast of the foxes, celebrated by the Romans, was probably derived from this event. At the feast of Ceres, the Goddess of Corn, celebrated annually at Rome, about the middle of April, there was the observance of this custom—to fix burning torches to the tails of a number of foxes, and to let them run through the circus, till they were burnt to death. This was done in revenge upon that animal for having once burnt up the fields of corn. The respective times agree exactly. For instance, from the book of Exodus we learn, that before the passover, that is before the fourteenth day of March, *barley* in Egypt was in the ear. And, again, it is said that the wheat, at that time, was not grown up. Barley harvest then in Egypt, and so in the country of the Philistines which bordered on it, must have fallen about the middle of March. Wheat harvest, according to Pliny, was a month later. Therefore, wheat harvest happened about the middle of April; the very time at which the burning of foxes was observed at Rome.

It is certain that the Romans borrowed many of their rites and ceremonies from foreign nations: and Egypt and Phenicia furnished them with more perhaps than any other country. From one of these the Romans might either receive this rite immediately, or through the hands of their neighbours, the Carthagenians, who were a colony of Phenicians; and so its origin may be safely referred to the story we have been considering.

USEFUL AND ENTERTAINING EXTRACTS.

AUTUMN.

The season is silently stealing onward when the Goddess of Nature disrobes herself of her simple blooming livery of green, and assumes her rich, russet and variegated mantle, as if to conceal her waning charms by a display of gorgeous decoration. Crowned by her blessings of industrious toil, the heart of the husbandman

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expands as he proudly beholds his overflowing granaries, and his feelings swell with exultation at the sight of his bending orchards unfolding the golden treasures of Pomona. Home, always the dearest spot on earth is now the abode of renovated fondness, springing from the rich profusion of the offerings of the season—a sanctuary from which labour has expelled barrenness, and pinching want. Gratitude to the all-bounteous giver is among the duties enjoined on humanity, to a sense of which obligation, the appearance of all things around may well recall the coldest disposition.

"Think, oh, grateful think,
Who pours abundance o'er your flowing fields."

In the midst of the reign of the perfection of Nature's stores, her decay is also visible—the falling of the dry and withered leaf is a touching emblem of mortality appealing with irresistible though melancholy influence.

While on the subject of the season, we cannot forbear subjoining the following beautifully appropriate remarks:

"There is an eventide in human life, a season when the eye becomes dim, and strength decays, and when the winter of age begins to shed upon the human head its prophetic snow.

"You have entered upon the autumn of your being, in which you may meditate upon the past and future, and repose yourself for the mighty change which you are soon to undergo.

"It is now you may understand the magnificent language of Heaven—it mingles its voice with that of Revelation—it summons you in these hours, when the leaves fall, and the winter is gathering, to that evening study which the mercy of Heaven has provided in the book of salvation. And while the shadowy valley opens, which leads to the abode of death, it speaks of that love which can conduct to those green pastures and those still waters, where there is an eternal spring for the children of God."—*Miner's Journal.*

A MAP does not exhibit a more distinct view of the boundaries and situation of any country, than its newspapers does a picture of the genius and morals of its inhabitants.

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ANECDOTE OF RICHARD BAXTER.

During Mr. Baxter's residence in Coventry, he, in company with several of the ejected ministers who resided there, commenced preaching in a house by the side of a common, not many miles from the city. The time of service being rather early in the morning, Mr. Baxter set out for the place the preceding evening. The night being dark, he missed his way, and after wandering about for a considerable time, he espied a light on a rising ground at some distance; to which he immediately bent his steps. On his arrival, he found that it emanated from the window of a gentleman's house. He called, and begged to be allowed to remain until the morning; at the same time stating that he had lost his way. The servant informed his master, that a person of very respectable appearance was at the door; and wished to be accommodated for the night. The gentleman ordered the servant to invite him in. The invitation was cordially accepted; and Mr. Baxter met with the greatest hospitality. At supper, the gentleman inquired what was the profession or employment of his guest. Mr. B. from several things spoken by his host, saw it necessary to be upon his guard, and replied: "I am a *man-catcher*, sir." "A man-catcher (said the gentleman,) are you? You are the very person I want. I am a justice of the peace in this district, and am determined to seize one Dick Baxter, who is expected to preach at a neighbouring cottage to morrow morning, and you shall go with me, and I doubt not we shall easily apprehend the rogue." Mr. Baxter no longer remained ignorant of the quality of his host, and consented to accompany him. After breakfast next morning, they accordingly set out in the magistrate's carriage for the place. When they arrived, the people were beginning to assemble outside of the house; but no Dick Baxter made his appearance to preach. The justice seemed to be considerably disappointed; and said to his companion, he supposed that Baxter had been apprized of his design, and would not fulfil his engagement. After waiting for some time in ardent expectation for the approach of the Nonconformist, but without effect, Mr.

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B. told the magistrate that it was a pity for so many people to be collected together, and on the Sabbath morning, too, without something being said to them respecting religion; and hoped he would deliver a short address to them on that subject. He replied, that as all religious services should begin with prayer, he could not perform that part of the duty, not having his prayer-book in his pocket. "However," said the gentleman, "I am persuaded that a person of your appearance and respectability, would be able to pray with them as well as to talk to them. I beg, therefore, that you will be so good as to begin with prayer." After a few modest refusals, Mr. Baxter commenced the service with a prayer at once solemn and fervid, for which he was so remarkable. The magistrate was soon melted into tears. The man of God then delivered a most impressive sermon; after which, the magistrate stepped up to him and said, he felt truly thankful that Baxter had not come for he had never heard any thing which so much affected him in the whole course of his life. Baxter turning round to him, with a pathos not to be imitated, said: "Sir, I am the very Dick Baxter of whom you are in pursuit.—I am entirely at your disposal." But the justice having felt so much, during the service, he entirely laid aside all his enmity, and ever afterwards became one of the most decided friends of Nonconformity, and died, it is believed, a decided Christian.

HUMAN LIFE.

It is good to acquaint ourselves with the thoughts of others, but it is better to think ourselves. Reflection upon what has been and now is, constitues the chief source of knowledge. That we pause occasionally in the outward course of our pilgrimage, trace effects to their causes, examine existing circumstances, and anticipate their probable results, is both pleasing and profitable, and attended with the happiest consequences. Times of reflection, of sober thought, of timid anticipation of the future, are incident to our nature—are common to all: they will flit across the mind in spite of the sallies of youth, the gayety of company, and the fashions of the world. The turning of these seasons to

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profitable account, is the parent of wisdom. If rightly improved they produce a salutary action upon the mind, and leave an impression as durable as the immortal spirit that receives it. Without such mental exercise, no man becomes wise or influential—no man acquires a permanent character for maturity of judgment or knowledge of human nature. Sterling worth and a discriminating mind are the results of patient and continued observation upon the ways of men. Omit them, and we glide along with the current of the times, mere passive beings, dependent upon capricious fortune and incidental circumstances for what shall form our character and shape our conduct to-morrow. We learn wisdom from experience and reflection combined, and in addition to our own, the history of others stands forth in bold relief, a fertile source from which to reap instruction, and by which to regulate the economy of living.

CHARITY.

THE exercise of the various affections which constitute charity, is the first school of refinement, dignity, moral taste, discrimination and happiness, to be found on this side of heaven. Charity makes me the confidant of the human race; opens the bosoms of men to my inspection and perusal; discloses the inmost recesses of the soul; leads me into the secret hoarded mysteries of the heart; makes me a companion with God in searching and trying the reins; binds me to man, and him to me; and conducts me to a paradise of virtues, where every tree is loaded with life, and every bough drops joy and immortality.

IMPORTANCE OF EARLY HABITS.

WHEN you look forward to those plans of life, which either your circumstances have suggested or your friends have proposed, you will not hesitate to acknowledge, that in order to pursue them with advantage, some previous discipline is requisite. Be assured that whatever is to be your profession, no education is more necessary to your success, than the acquirement of virtuous dispositions and habits. This is the universal preparation for every character and every station in life. Bad as the world is, respect is always paid to virtue.—BLAIR.

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ELEGANT EXTRACT.

I saw a mourner standing at eventide over the grave of one dearest to him on earth. The memory of joys that were past came crowding on his soul. "And is this," said he, "all that remains of one so loved and so lovely? I call, but no voice answers. Oh! my loved one will not hear? O death! inexorable death? what hast thou done? Let me lie down and forget my sorrow in the slumber of the grave!" While he thought thus in agony, the gentle form of Christianity came by. She bade him look upward, and to the eye of faith the heavens were disclosed. He had heard the song and transport of the great multitude which no man can number around the throne. There were the spirits of the just made perfect—there, the spirit of her he mourned! There, happiness was pure, permanent, perfect. The mourner then wiped the tears from his eyes, took courage and thanked God:—"All the days of my appointed time," said he, "will I wait till my change come;" and he returned to the duties of life no longer sorrowing as those who have no hope.

GENIUS, BY MR. IRVING.

It is interesting to notice how some minds seem almost to create themselves, springing up under every disadvantage, and working their solitary but irresistible way through a thousand obstacles. Nature seems to delight in disappointing the assiduities of art, with which it would rear legitimate dullness to maturity; and to glory in the vigour and luxuriance of her chance productions. She scatters the seeds of genius to the winds, and though some may perish among the stony places of the world, and some may be choaked by the thorns and brambles of early adversity, yet others will now and then strike root even in the clefts of the rock, struggle bravely up into sunshine, and spread over their sterile birth-place, all the beauties of vegetation.

The wings by which the godly soul flies towards God are not waxed to it, as the poets feign Icarius's to have been: but they grow out of itself, as the wings of an eagle that fly swiftly towards heaven.—Shaw.

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CHRISTIANITY.

The real Christian can never be unhappy, bating the pressure of immediate bodily anguish, and even through the tortures of the rack, a steady belief in God must be a powerful and an enduring support. No earthly prospect, however desolate—no danger, however formidable can overcome him with terror or despair; for his thoughts are ever dwelling on something *beyond*, in the full peace and bliss in which a few brief struggles will place him. He may tread cheerfully the most repulsive and perilous passage, when he has the pledge of a heavenly Father, that he will conduct him to bliss. He embarks on the deep, and his ship may be tempest tost, yet what cares he when he *knows* that the howling winds only waft him homewards to everlasting joy. What is there to make him shrink—or weep—or tremble? What grandeur of character springs from this sacred religion? How majestic does its pure disciple appear descending into the shadowy abyss of death! He only is calm and happy when all around are writhing in anguish! What has the recoiling, the shuddering, bewildered, horror-stricken atheist to offer as a substitute for a spell so potent and sublime? What consolation has he, flung carelessly into the world, continually stung with so many kinds of anguish; and so lashed and lashed to his tomb? With what awful and exquisite grief must he stand,

"Where the grave-mound greenly swells
O'er buried faith,"

and feel that the being he loved has passed away, and is as if he had never been? To him the diseases of life wear the aspect of fiends. They are not the necessary evils which seem to purify him and prepare him for heaven. They are but the tortures of an accidental and monstrous state of abandonment and confusion—a dark dream, for the enjoyments of which he has no foundation; for its wretchedness no reward; whose images are a delusion, whose hereafter is a blank.

Truth is never alone in the heart; and it is very lively there, when it causes a man to seek Christ, to adhere to Him, and humble himself at his feet, drawing from his eyes tears of repentance, and disposing him to give all to God, and to his neighbor for God's sake. QUESNEL.

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POETRY.

THE CITY OF THE PLAGUE.

"Nor for the pestilence that walketh in darkness, nor for the destruction that wasteth in noon-day. A thousand shall fall at thy side, and ten thousand at thy right hand; but it shall not come nigh thee." PSALMS XCI.

It is the city of the plague, of mourning and of death,
There's desolation in the air, and poison in its breath:
The sickening scourge of terror has levelled in its train
The high and low, the rich and poor, and ruled the couch of pain.
It has blanched the cheek of beauty, and chased the blooming rose,
And swept the gentle maiden from her calm and sweet repose;
It has wrecked the parent's heart, in sorrowing o'er her son:
She murmurs in her wretchedness, "O Lord, thy will be done!
Has set the canker-worm on manhood's glowing cheek:
Has bowed the spirit of the brave, the humble and the meek;
The infant is an orphan ere the closing of the day;
Yet 'tis "the will of Him who gave, and taketh now away;"
Has dimmed the eye of childhood with the first full tear of grief,
And broke the wo-worn heart with pain which struggled for relief;
Has left the lovely mourner on her widowed couch alone,
The whisperings of love exchanged for sorrow's anguished moan.
Has filled affliction's bitter cup o'erflowing to the brim;
The world that *is*, the world that *was*, in chaos seems to swim;
Mankind, in terror, shun to hold communion with their race;
There's peril in the multitude, despair in every face.
Creator of the Universe! O God above, 'tis thou
Who knowest best what is for us; we to thy judgment bow.
Hear all thy humble suppliants, who thee approach in prayer,
Spare all the people from the scourge—thy mercy let them share!

DUBLIN, May 8. K. H.

AUTUMN SUNSET.

Oh—there is beauty in the sky—a widening of gold
Upon each light and breezy cloud, and on each vapory fold!
The autumn wind has died away, and the air has not a sound,
Save the sighing of the withered leaves as they fall upon the ground.
A softened tint of gold is on the dark sky of the North,
And in the South the diamond stars are slowly coming forth;
Above the burning horizon—the radiance of the West
Is mellowed upon clouds that seem fit cars for angels' rest!
'Tis Autumn—but the forest oak its summer greenness wears,
The yellow maple at its side the Spoiler's impress bears—
And on the tall hill's withered brow the frost-flower only blooms
Above its fairer sister's grave—like "Age amidst the tombs."
The Earth looks sad—but in the sky, where from his undimmed track
The Sun hath gone in brightness down, and cast his banner back,
A mystic glory lingers yet to trace the sunset hours—
A glory which the Earth knows not in its sunniest time of flowers.

WHITTIER.

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THE DEAD PATRIARCH TO HIS DAUGHTER.

Thou hast watch'd o'er my pillow, and guarded my rest,
Met my wish ere it broke from my tongue;
And, like a bright form from the realms of the blest.
O'er my flickering life-lamp hast hung;
Thou hast long the last struggles of nature beguil'd,
Long its terrors smiled sweetly away;
But now thou hast paid the *last* duty, my child!
"Thou art weeping beside me to-day."
But weep not for me, as the *wreck* thou hast seen;
Forget my poor mouldering clay;
Nay, think not of me, as I *ever have been*.
O! weep *not* 'beside me to-day.'
Thy father sleeps not in that perishing dust:
His spirit has burst from its clod,
And wing'd its bright way, with the *thrill* of the just,
And the *youth of an angel*—to God.

VAN YEVOREN'S GRAVE.

BY REV. JOHN KENNADAY.

Of the many interesting villages which adorn the banks of the river Hudson, there is none surrounded with so many of the various beauties of nature as that of Poughkeepsie. Situated about one mile south of the village, is an extensive grov , of oak and cedar trees, in the front of which is a beach over which the billows of the Hudson break. Beneath the bank which bounds the rear of the grove, is the solitary grave of Van Yevoren. Around the grave are a number of trees, and at a little distance from it, winding through a dark wood, is a brook which empties into the river below. Van Yevoren, I have been told by some, was found drowned, many years ago, upon the beach near where his grave now is, having been, it was supposed, hove upon the shore by the waves. Others state, that having embarked on board of a sloop from New-York, he was taken ill of the Yellow Fever, and immediately set on shore amid the darkness of the night, where he was left to die upon the beach, where his corpse was next morning found. There was sufficient money found upon his person to erect a stone at the head of his grave, which states that he was recently from Germany, and aged about thirty years. The variety an' beauty of its scenery has rendered the grove which contains th grave of Van Yevoren an interesting resort.

On yonder lone grove, where the owl's sullen cry,
Oft breaks o'er the silence of even
When the oak with its dark top obscuring the sky,
Casts a veil o'er the pale lamps of heaven:
'Tis there, where the Hudson it course proudly winds,
Oft washing the shore with its waves,
That the corpse of the stranger in ashes reclines,
Where a stone marks Van Yevoren's grave.

How oft to this spot to my mem'ry e'er dear,
At the close of the day I have sped,
And on the green sward oft has fallen the tear,
As I seem'd to converse with the dead:

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And when the last rays of the sun 'lum'd the west,
And smil'd o'er the slow rolling wave,
I've waited till darkness in mourning had drest
The place of Van Yevoren's grave.

Yes, here have I thought, "'tis the father's fond son,
For whose peace oft the mother has pray'd,
Or a husband, whose fate a lov'd wife has ne'er known,
Nor known where that husband is laid:
O, then I have wept, while I fancied their grief,
And half heard them in agony rave;
I have thought that if there they would find a relief,
Could they weep o'er Van Yevoren's grave.

There, too, I have learn'd how the world glides away,
And earth's brightest visions must fade;
From the portals of heaven, a voice seem'd to say,
"Prepare thou to sleep with the dead."
Not mine be the tomb which ambition may rear,
O'er the dust of the mouldering brave,
But grant me a spot, to fond pity e'er dear,
Like that of Van Yevoren's grave.

If Thou be one, whose heart the holy forms
Of young imagination have kept pure,—
Stranger! henceforth be warned; and know that pride,
Howe'er disguised in its own majesty,
Is littleness; that he who feels contempt
For any living thing, hath faculties
Which he has never used; that thought, with him,
Is in its infancy. The man whose eye
Is ever on himself, doth look on one,
The least of nature's works, one who might move
The wise man to that scorn which wisdom holds
Unlawful, ever. O, be wiser, Thou!
Instructed that true knowledge leads to love,
True dignity abides with him alone,
Who in the silent hour of inward thought,
Can still suspect and still revere himself,
In lowliness of heart. WORDSWORTH.

SONNET.

Could we but concentrate our spirits' tone
From things of earth, and quaff, at will, the springs
That kindred claim with pure and holy things,
How sweetly would life pass! like a joyous dream,
Splendid but happy; or a scene at night
In moonlight sleeping, beautifully grand!
Or nature basking in the noontide beam,
Tranquil as beauty in the arms of sleep,
Meet emblems of the spirits' fairy land!
But darkness dims the enchanting glow of day,
And night's still beauties flee like dreams away;
Pleasures, like forms reflected in the deep,
Perish in storms; and thoughts that give delight
Come, like moonlight on the stream, but soon are gone.

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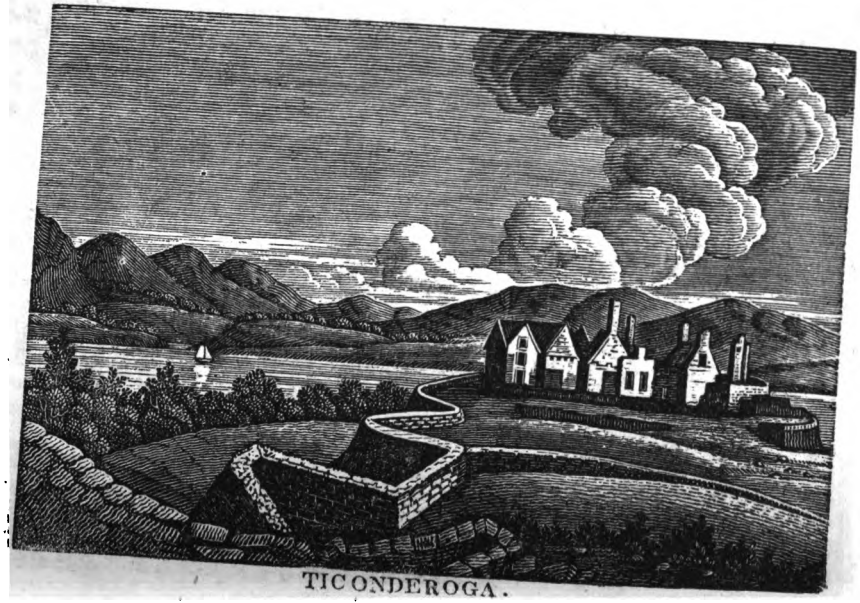

TICONDEROGA.

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THE

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Entertaining Knowledge.

VOL. III. OCTOBER, 1832. No. 5.

TICONDEROGA.

THE ruins of this once formidable fortress so famous in the annals of American war, are still in a tolerable state of preservation, and will amply reward the patriotic tourist who loves to visit the places consecrated by the blood of his fathers. They stand on a promontory of considerable elevation, which projects between Lake Champlain on the east, and the passage into Lake George on the west. This fortress was built by the French during the period of their occupation of the country, and has been the scene of some of the most daring enterprizes in the old French war and that of the American revolution. In 1758, Lord Howe and many other gallant men lost their lives in General Abercrombie's unfortunate expedition against it. In 1759, it was abandoned by the French on the approach of Lord Amherst with a powerful army, and its fall filled the northern colonies with joy, for it had long been a safe retreat for the French and Indians, whence they made their ferocious incursions into the English settlements. In the revolutionary war great hopes were reposed upon Ticonderoga as a barrier against invasion; it was regarded as being emphatically the strong hold of the north, and on its capture by General Burgoyne in 1777 the whole frontier was exposed to the enemy. The fall of Ticonderoga in '77 was owing to the inability of the

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Americans to occupy Mount Defiance, as they had scarcely men enough to man the existing works. This mount stands on the outlet of Lake George, between it and Lake Champlain, and completely commands the fortress, which lies far below and within fair cannon-shot. It is surprising that so important a position should have been overlooked by so many distinguished commanders; for it was never occupied till Burgoyne dragged his cannon up its precipices; the moment he showed them on its summit, Ticonderoga was no longer tenable, and was immediately abandoned. After all the dilapidations of time and man, Ticonderoga with its mutilated walls and barracks, and its picturesque environs, presents one of the finest ruins in America. Happily the garrison ground, constituting a farm of about six hundred acres, and including the old French lines, as well as the forts and barracks, has fallen into the hands of a gentleman—Mr. Pell of New-York—whose good sense and just taste will not permit a stone to be removed. This scene, fine in its natural beauty and grandeur, and still finer in its historical associations, may therefore go down to posterity without further mutilation. The walls, the barracks, the subterraneous magazines, the kitchens and store rooms, the covered ways and advanced works of Ticonderoga are of solid masonry. When the fortress was precipitately abandoned in the revolutionary war, by the army under General St. Clair, it was blown up and set on fire. The explosion removed the roof, and overthrew a part of the walls of the barracks; but enough remains to give a perfect idea of the structure. The half burnt timbers still remain in the walls, and the subterraneous structures, as well as the proper walls of the fort, have escaped with little injury from the hand of violence and of time. The south gate of the fort is the one at which General Arnold entered, when he surprised the British garrison, at the commencement of the American war. The Grenadier's battery, as it is still called, is at the southern point of the peninsula, at the water's edge, and is terminated by perpendicular cliffs of limestone rock. On the shore, at the landing place, is one of the old stone store houses which is now used as a tavern. On the Continent, on the opposite side of the Lake, are the remains of the Fort, on Mount Indepen-

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dence, to which the main body of the American army retreated, in July 1777 when pursued by Gen. Burgoyne.

Professor Silliman, to whose interesting tour * we are indebted for the principal part of the above sketch, visited Ticonderoga in 1819, and on leaving it, indulges in the following reflections:—The shadows of night were descending on the venerable Ticonderoga as we left it; and when I looked upon its walls and environs so long and so often clustering with armies—formidable for so great a length of time in all the apparatus and preparations of war, and the object of so many campaigns and battles; but now exhibiting only a solitary smoke curling from a stone chimney in its half fallen barracks, with not one animated being in sight; while its massy ruins and the beautiful green declivities sloping on all sides to the water, were still and motionless as death, I felt, indeed, that I was beholding a striking emblem of the mutability of power and of the fluctuations of empire. Ticonderoga, no longer within the confines of a hostile country—no longer a rallying point for ferocious savages and for formidable armies—no more a barrier against invasion, or an object of siege or assault, has now become only a pasture for cattle.

* Remarks made on a short tour between Hartford and Quebec in the autumn of 1819.

CABINET OF NATURE

FALLS OF NIAGARA.

BY REV. F. W. P. GREENWOOD.

[*Continued from page* 116.]

And the motion of these Falls, how wonderfully fine it is! how graceful, how stately, how calm! There is nothing in it hurried or headlong, as you might have supposed. The eye is so long in measuring the vast, and yet unacknowledged height, that they seem to move over almost slowly; the central and most voluminous portion of the Horseshoe even goes down silently. The truth is, that pompous phrases cannot describe these Falls. Calm and deeply meaning words should alone be used in speaking of them. Any thing like hyperbole would degrade them, if they could be degraded. But they cannot be. Neither the words nor the deeds

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of man degrade or disturb them. There they pour over, in their collected might and dignified flowing, steadily, constantly, as they always have been pouring since they came from the hollow of His hand, and you can add nothing to them, nor can you take any thing from them.

As I rose, on the morning following my arrival, and went to the window for an early view, a singular fear came over me that the Falls might have passed away, though their sound was in my ears. It was, to be sure, rather the shadow of a fear than a fear, and reason dissipated it as soon as it was formed. But the bright things of earth are so apt to be fleeting, and we are so liable to lose what is valued as soon as it is bestowed, that I believed it was a perfectly natural feeling which suggested to me for an instant, that I had enjoyed quite as much of such a glorious exhibition as I deserved, and that I had no right to expect that it would continue, as long as I might be pleased to behold. But the Falls were there, with their full, regular and beautiful flowing. The clouds of spray and mist were now dense and high, and completely concealed the opposite shores; but as the day advanced, and the beams of the sun increased in power, they were thin and contracted. Presently a thunder shower rose up from the west, and passed directly over us; and soon another came, still heavier than the preceding. And now I was more impressed than ever with the peculiar motion of the Fall; not, however, because it experienced a change, but because it did not. The lightning gleamed, the thunder pealed, the rain fell in torrents; the storms were grand; but the Fall, if I may give its expression a language, did not heed them at all: the rapids above raged no more and no less than before, and the Fall poured on with the same quiet solemnity, with the same equitable intentness, undisturbed by the lightning and rain, and listening not to the loud thunder.

About half a mile below the Horseshoe Fall, a commodious road has lately been cut in a slanting direction, down the side of the perpendicular cliff, and through the solid rock, to the river. Here we find a regular ferry, and are conveyed in a small boat across the stream, which is now narrowed to a breadth of about twelve hundred feet to the American side. The passage is per-

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fectly safe, and, though short, delightful, as it affords a superb view of both the Falls above, and of the dark river below. The current is not very rapid, and near the American side actually sets up toward the Falls; by the help of which eddy the boat regains what it had lost in the middle of the stream. We land almost directly at the feet of the American Fall, and by walking a little way to the right, may place ourselves in its spray Now look up, and the height will not disappoint you. Now attend to the voice of the cataract, and it will fill your soul with awe. It seems as if the 'waters which are above the firmament' were descending from the heights of heaven, and as if 'the fountains of the great deep were broken up' from below. The noise, which permits free conversation to those who are on the bank above, is here imperative and deafening. It resembles the perpetual rolling of near thunder, or the uninterrupted discharge of a battery of heavy ordnance, mingled with a strange crashing and breaking sound. This resemblance to the roar of artillery is heightened by the sight of the large bodies of spray, which are continually and with immedse force exploded from the abyss. The impression of superior height is gained, not so much from the fact, that the American Fall is actually ten or twelve feet higher than the British, as from your having a complete *profile* view of the one, from brink to base, which you cannot well obtain of the other.

Flights of secure wooden steps bring us to the top of the bank,* where we again stand on a level with the descending Falls. We soon found that the greatest variety of interest was on this, the American side. The village of Manchester is situated on the rapid, just above the Fall. A bridge is thrown boldly over the rushing and "arrowy" rapid to a small Island, called Bath Island, where there are one or two dwellings and a

* On this bank, near the ferry-house, there is a stone embedded in the ground, rudely carved on which, there has lately been discovered, by removing the moss which had grown over it, the following inscription:—I. V. 1747. This is by far the most ancient date to be found in the vicinity. I. V. whoever he was, when he looked upon the Falls, must have been surrounded by a perfect wilderness. What poet will speak in his name, and describe his feelings, and record his thoughts, as he stood here alone with God?

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paper-mill; and from this spot another bridge runs with equal boldness to Goat Island. The whole breadth of the space thus traversed is one thousand and seventy-two feet.

Goat Island is a paradise. I do not believe that there is a spot in the world, which, within the same space, comprises so much grandeur and beauty. It is but about a mile in circumference, and in that mile you have a forest of tall old trees, many of them draperied with climbing and cleaving ivy; a rich variety of wild shrubs and plants, several views of the rapids; an opportunity to pass without discomfort under the smaller American Fall, and the very finest view, I will venture to say, of the great Crescent, or Horseshoe Fall. Turn to the left, as you enter this Eden, and you come out into a cleared and open spot, on which you discern a log hut with vines round its door and windows, and a little garden in front of it, running down to the water's edge; a flock of sheep feeding quietly, or reposing pleasantly under scattered clumps of graceful trees; while, beyond this scene of rural repose, you see the whole field of the rapids, bearing down in full force, upon this point of their division, as if determined to sweep it away. Or, turn to the right, and treading the shady forest, step aside to the margin of the smaller American Fall,* and bathe your hands, if you please, in its just leaping waters. Then, pursuing the circuit of the island, descend a spiral flight of stairs, and treading cautiously along the narrow footpath, cut horizontally in the side of the cliff, enter the magnificent hall formed by the falling flood, the bank of which you have just left, and command your nerves for a few moments, that, standing as you do about midway in the descent of the Fall, you may look up, eighty feet, to its arched and chrystal roof, and down, eighty feet, on its terrible and misty, and resounding floor. You will never forget that sight and sound.

[*To be concluded.*]

* This is separated from the greater Fall by a diminutive island, covered with trees, which tenaciously maintains its terrible position, in emulation, as it were, of Goat Island. This lesser Fall, small as it is, compared with the others, would of itself be worth a journey.

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HISTORICAL AND PHYSICAL GEOGRAPHY OF THE HOLY LAND—No. VIII.

WILDERNESSES OR DESERTS.

FREQUENT mention is made in the scriptures of Wildernesses or Deserts, by which we usually, though erroneously understand desolate places, equally void of cities and inhabitants: for the Hebrews gave the name of desert or wildnerness to all places that were not cultivated, but which were chiefly appropriated to the feeding of cattle, and in many of them trees and shrubs grew wild. Some of them are mountainous and well watered, while others are sterile sandy plains, either destitute of water, or affording a very scanty supply from the few springs that are occasionally to be found in them; yet even these afford a grateful, though meagre pasturage to camels, goats, and sheep. In this latter description of deserts it is, that the weary traveller is mocked by the distant appearance of white vapors, which are not unlike those white mists we often see hovering over the surface of a river in a summer evening, after a hot day. When beheld at a distance, they resemble an expanded lake; but, upon a nearer approach, the thirsty traveller perceives the deception. To this phenomenon the prophet Isaiah alludes (xxxv. 7.); where, predicting the blessings of the Redeemer's kingdom, he says, *The glowing sand shall become a pool, and the thirsty soil bubbling springs.*

The deserts of the Hebrews frequently derived their appellations from the places to which they were contiguous. The most celebrated is the *Great Desert*, called the *Wilderness* or *Desert of Judah* (Psalm lxiii. title.) The desert of Judæa, in which John the Baptist abode till the day of his showing unto Israel (Luke i. 80.), and where he first taught his countrymen, (Matt. iii. 1. Mark i. 4. John x. 30.), was a mountainous, wooded, and thinly inhabited tract of country, but abounding in pastures: it was situated adjacent to the Dead Sea, and the River Jordan. In the time of Joshua it had six cities, with their villages. (Josh. xv. 61, 62.)

This country also produced some WOODS or FORESTS mentioned in holy writ, such as those of *Hareth* in the tribe of Judah, to which David withdrew from Saul (1 Sam. xxii. 5.); of *Ephraim*, where Absalom received

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the due reward of his unnatural rebellion (2 Sam. xviii. 6—9,); that of *Lebanon*, where Solomon erected a sumptuous palace (1 Kings vii. 2.); the forest of *Bethel*, supposed to have stood near the city of that name (2 Kings ii. 24.); and the *Forest of Oaks* on the hills of Bashan. (Zech. xi. 2.)

The FERTILITY of the soil of the Holy Land, so often mentioned in the sacred writings, (and especially in Deut. viii. 9—9. xi. 10—12. Gen. xxvi. 12. and Matt. xiii. 8.) is confirmed by the united testimonies of ancient writers, as well as by all modern travellers. We are assured that, under a wise and beneficent government, the produce of the Holy Land would exceed all calculation. Its perennial harvest; the salubrity of its air; its limpid springs; its rivers, lakes, and matchless plains; its hills and vales—all these added to the serenity of its climate, prove this land to be indeed "a field which the Lord hath blessed," (Gen. xxvii. 28.); "God hath given it of the dew of heaven, and the fatness of the earth, and plenty of corn and wine."

Such being the state of the Holy Land, at least of that part of it which is properly cultivated, we can readily account for the vast population it anciently supported. Its present forlorn condition is satisfactorily explained by the depredations and vicissitudes to which it has been exposed in every age; and so far is this from contradicting the assertions of the sacred writings, that it confirms their authority; for, in the event of the Israelites proving unfaithful to their covenant-engagements with Jehovah, all these judgments were predicted and denounced against them (Lev. xxvi. 32. Deut. xxix. 22. *et seq.*); and the exact accomplishment of these prophecies affords a permanent comment on the declaration of the royal psalmist, that God "turneth a fruitful land into barrenness for the wickedness of them that dwell therein." (Psal. cvii. 34.)

Never quit your hopes. Hope is often better than enjoyment. Hope is often the cause as well as the effect of youth. It is certainly a very pleasant and healthy passion. A hopeless person is deserted by himself; and he who forsakes himself is soon forsaken by friends and fortune.—BERKELEY.

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TOPOGRAPHICAL SKETCHES, NO. V.

VIEW OF THE MOUNT OF OLIVES FROM JERUSALEM.

There in dark bowers embosomed, Jesus flings
His hand celestial o'er prophetic strings;
Displays his purple robe, his bosom gory,
His crown of thorns, his cross, his future glory;—
And while the group, each hallowed accent gleaning,
On pilgrim staff, in pensive posture leaning—
Their reverend beards that sweep their bosoms, wet
With the chill dews of shady Olivet—
Wonder and weep, they pour the song of sorrow,
With their loved Lord, whose death shall shroud the morrow

Pierpont's Airs of Palestine.

THE scenery of Palestine is alive with holy recollections. The modern traveller, at this distance of time from the date of the grand transactions which have rendered Judea a land of sacred classics forever, can scarcely place his foot where there is not a fragrance exhaling from ancient story connected with the dust, the rocks, the hills, vales and tombs of the land of Canaan. So striking is the face of nature now, that the mind is lost in wonder in striving to conceive the glorious appearance of the country, when it was emphatically the glory of all lands—when the hills were green to the summits, the vales warm and irriguous, and the tops of the elevations crowned with fortresses and battlements that frowned defiance to the invader. But Jerusalem itself, with its temple-crested mountain, and the scenery

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around it, may be supposed the diadem of beauty, sublimity and strength to the whole country. In Croly's lively pencillings we give the outlines of the temple as it rose on the adoring eyes of the chosen nation. 'I see the court of the Gentiles circling the whole; a fortress of the whitest marble, with its wall rising six hundred feet from the valley; its kingly entrance, worthy of the fame of Solomon; its innumerable and stately dwellings for the priests and officers of the temple, and above them, glittering like a succession of diadems, those alabaster porticos and colonades, in which the chiefs and sages of Jerusalem sat teaching the people, or walked, breathing the pure air and gazing on the grandeur of a landscape, which swept the whole amphitheatre of the mountains. I see, rising above this stupendous boundary, the court of the Jewish women, separated by its porphyry pillars and richly sculptured wall; above this, the separated court of the men; still higher, the court of the priests; and highest, the crowning splendor of all, the central temple, the place of the sanctuary and of the Holy of Holies covered with plates of gold, its roof planted with lofty spear heads of gold, the most precious marbles and metals every where flashing back the day till Mount Moriah stood forth to the eye of the stranger approaching Jerusalem, what it had so often been described by its bards and people, *a mountain of snow, studded with jewels!*

But a little way from this glorious mountain, eastward over the valley of Jehoshaphat, through which Cedron flows, is the Mount of Olives, now a lonely place, where contemplation loves to dwell and muse on two events in our Savior's life which have consecrated its scenery—the mental agony in the garden, and his final ascension from the earth. Of the first named incident the evangelists speak in tones of sorrow—and, although Jesus ascended into heaven to prepare mansions for all his followers, the elevated and original Bossuet speaks thus despondingly of his separation from the church:—'but she has only heard his enchanting voice, she has only enjoyed his mild and engaging presence for a moment. Suddenly he has taken to flight with a rapid course, and, swifter than the fawn of a hind, has ascended to the highest mountains. Like a desolate wife the church

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has done nothing but groan and the song of the forsaken turtle is in her mouth; in short, she is a stranger and a wanderer upon the earth.'

The Mount of Olives, even now shaded in part by the tree from whence it derives its name, is situated to the east of Jerusalem, from which it is separated by the brook Cedron and the valley of Jehoshaphat. The garden of Gethsemane lies over the brook on the acclivity of the mountain. As the traveller approaches Jerusalem through the village of Jeremiah, Olivet bursts upon his sight along with Moriah and Zion. It has three eminences or summits, one of which stretches away to a sabbath day's journey from Jerusalem. The engraving which we present in this number gives its appearance from the city. It was up this elevation that King David three thousand years ago went weeping when Absalom's rebellion forced him to abdicate his throne for a season; and from its elevation Jesus beheld and wept over the devoted city.

We close this article with a few extracts from the journal of the lamented missionary to Palestine, Fisk, who with his friends, Parsons, King and Wolff, frequently repaired to Olivet to gaze on Jerusalem and ponder on the sublime and melancholy associations connected with its scenery. 'We made our first visit to Mount Olivet, and there bowed down before him, who, from thence ascended to glory, and sat down on the right hand of the majesty on high. There we held our first monthly concert of prayer in the holy land. There is no doubt that this is the mount from which the Mediator ascended to his Father and to our Father. On this interesting spot, with Jerusalem before us, and on this interesting day, when thousands of Christians are praying for Zion, it was delightful to mingle our petitions with theirs, and pray for our friends, for ministers, for churches, for missionaries and the world. From this Mount we have a view of the Dead Sea where Sodom and Gomorrha stood, and the mountains beyond Jordan from which Moses beheld, in distant prospect, the promised land.

With some olive branches from Olivet, and some flowers from the mansion house of Lazarus in our hands, we returned by a winding way around the south

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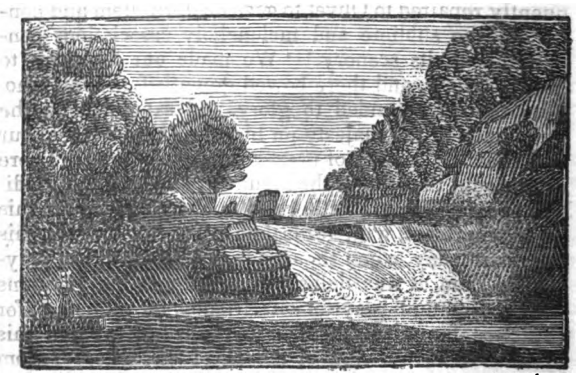
of Mount Olivet, till we came to the brook Cedron, where it enters the valley of Jehoshaphat. This valley seems like a frightful chasm in the earth, and when you stand in it, and see Mount Zion and Moriah towering above it with steep hills and precipices, on your right hand and left, you can easily feel the force of those sublime passages in the prophet Joel, in which the heathen are represented as being gathered together to be judged. The prophet seems to represent the Almighty as sitting in his holy temple, or on the summit of Zion, to judge the multitudes in the valley beneath him; and there executing his judgments, while the sun and moon are darkened and the stars withdraw their shining, and Jehovah roars out of Zion, and utters his voice from Jerusalem, and the heavens and the earth shake; and it is thus made manifest to the confusion of idolaters, and to the joy of the true Israel that God dwells in Zion, his holy mountain, and is the hope of his people, and the strength of his children of Israel.



TRENTON FALLS.

This beautiful and romantic spot, now the favorite resort of thousands, was but a few years since almost unknown, and rarely visited except by the enthusiastic lover of nature. For to him alone were the attractions of its

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peerless combination of charms sufficient to counterbalance the toil and peril necessary to be encountered in reaching its almost inaccessible situation. But since the hand of man has smoothed the diffiulties of approach and provided for all his reasonable wants and comforts, the tourist rarely passes Trenton without stopping to pay a visit to the Falls.

Trenton Falls are situated on West Canada creek, about fourteen miles north of the city of Utica, the great thoroughfare of the west. A pleasant ride brings the visitor to the neighborhood of the spot. Here, at the very end of the road, he finds a comfortable house prepared for his accommodation. The grounds are bounded on three sides by the original forest; and from the door-yard you step directly into the wood. A walk of a few yards through the forest brings you within hearing, but but not in sight, of the cataract which seems to be roaring in the bowels of the earth beneath your feet. Presently you arrive at the brink of a yawning abyss, which, for all that you can see, may be bottomless. You begin to descend a stair which passes down the face of a perpendicular rock, and you feel as if you were leaving the living for the regions of the dead. The headlong torrent appears trembling far below, black with the shadows of overhanging hills and forests, and sweeping, as it dashes by, the very foot of the stair on which you stand. Above, you look up to a hundred feet of rock, and perhaps a narrow strip of sky. The deep ravine seems the effect of some mighty earthquake which has torn and dissevered the immense masses of rock that tower on either hand. The torrent, dashing in rage against the walls of its prison, overleaps the barriers that would impede its way, and urging its course for several miles through chasms of shattered rocks, toiling and struggling with the obstacles around, it finally unites with its parent Mohawk. Sometimes it gently whispers along over a level limestone pavement,—at others it foams impetuously down rent and shaggy rocks. Now it falls murmuring in musical cascades,—and then storming in madness, it thunders over the most awful precipices, almost with the might of Niagara.

Trenton has often been compared with Niagara, and in one point it is thought by many not to suffer in the

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comparison. We mean in the variety of the scenery. The entire majesty of Niagara bursts upon the eye at once;

"It comes like an eternity,
As if to sweep down all things in its track."

But at Trenton the beauties of the scenery are gradually developed, and there is an inexhaustible variety. We have spent a week there, and each day discovered charms that did not strike us on the day before. In our frequent walks we sometimes found ourselves crawling beneath black and overhanging rocks, and emerging on a level platform where, with perfect safety, the hand might be held in the dashing cataract; sometimes at the bottom of a dark abyss with mountainous walls of rock rising on each side several hundred feet, and tall black hemlocks and bending cedars mingling their branches over the verge above and shutting out the light of day. At other times climbing along the steep limestone rock, we have gathered the wild flowers that have bloomed there in the midst of desolation; the graceful Columbine, and the sweet blue Harebell, with which the face of the cliff was covered. And we have gazed upon the rainbow that spanned the foaming torrent, till we have almost fancied it the spirit of the beautiful maiden* that perished there, hovering over the place where she was lost. Hers was a melancholy fate; and tradition will long tell how she stood on the edge of the rock, in the morning of life, surrounded by her dearest friends, and rich in all that constitutes the loveliness of woman; and how she became dazzled by the flashing waters and fell into the stream. I have stood upon the very spot, and dropped a tear to her memory.

The rock at Trenton Falls is composed of black limestone in horizontal strata about eighteen inches thick, which are filled with organic remains of the Favorite, the Orthokeratte, the Nautilus, and the Gigantic Trilobite, the "*Isotelus Gigas*" of Dr. Dekay.

* Miss Eliza Suydam.

The life is but an index of the heart; the one tells where the other may be found.

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CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

THE MOON.

THE twenty-third number of Harper's Family Library is appropriated to the "Sacred Historo of the World, as displayed in the Creation and subsequent events, to the Deluge, by Sharon Turner." It is a valuable volume, and such as cannot but be read with profit, mental and moral. We annex a brief and interesting extract:

The substance of the moon is more known to us than that of the brighter luminary. Its volume is forty-nine times greater than that of the whole earth. There is ground for supposing that all is solid at its surface, for it appears, in powerful telescopes, as an arid mass, on which some have thought they could perceive the effects and even the explosions, of volcanoes. There are mountains on the surface of the moon, which rise to the height of nearly two miles: and it has been inferred that it has deep cavities, like the basins of our seas.

Men on board a ship, while lying in the moonlight with their faces exposed to the beams, often have their muscles spasmodically distorted, and their mouths drawn awry; others have been so injured in their sight as to lose it for several months. "Fish hung up all night in the light of the moon, when eaten next day, has occasioned violent sickness and excruciating pains." The Baptist missionaries mention, that he who has slept in the moonlight is heavy when he awakes, and as if deprived of his senses.—This corresponds with what Plutarch notices:—"Every body knows, that those who sleep abroad under the influence of the moon are not easily waked, but seem stupid and senseless."

Plutarch's notices are: The moon has some influence on flesh: meat corrupts sooner in the moonlight than in the sun—nurses generally are cautious of exposing their infants to the moonbeams. It is also said that most carpenters refuse trees cut in full of the moon as softer—farmers usually thrash their wheat in the wane: it is then drier and bears the flail better; in the full it is moist and bruised—dough leavens sooner in the full—

* Of all the sciences cultivated by mankind, astronomy is acknowledged to be, and undoubtedly is, the most sublime, the most interesting, and the most useful.

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at this time most dew falls. Hence the poet Aleman calls the dew "the daughter of the air and of the moon." —Plutarch's Sympos. lib. iii. quest. 6. I observe that Mr. Edmonstone, who had lived thirty years in the forests of Demerara, remarks that trees cut in the full moon split, and the wood soon rots.

The aerolites, or great stones that fall occasionally from the air, are either consolidated in the atmosphere, or come to us from the moon, which many philosophers think probable. Mr. Harte calculates that a body projected from the surface of the moon with the velocity of 6,000 feet in a second, would be carried beyond the attraction of its mass as now ascertained; that is, a force capable of projecting a body a little more than a mile and a half in a second. But cannon balls have been impelled half a mile in a second. Therefore, a projectile force three times greater than that of a cannon, would move a body from the moon beyond the point of equal attraction, and cause it to reach the earth. Bu a force equal to this is often exerted by our earthly volcanoes and subterraneous steam. Notes to La Place, vol. ii. p. 429. Hence, there is no impossibility of their coming from the moon; but yet I think the ærial consolidation more probable.

THE PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES;

Self-educated men.—Ferguson.—Influence of accident in directing pursuits.

(*Continued from page* 56.)

FERGUSON'S attention having thus been turned to the mechanism of time-pieces, he now began to do a little business in the neighborhood as a cleaner of clocks, by which he made some money. He was invited also to take up his residence in the house of Sir James Dunbar, of Durn, to whom he seems to have made himself useful by various little services for which his ingenuity fitted him. Among other things he converted two round stones upon the gateway, into a pair of stationary globes, by painting a map of the earth upon one, and a map of the heavens upon the other. "The poles of the painted globes," he informs us, "stood towards the poles of the heavens; on each the twenty-four hours were placed around the equinoctial, so as to show the time of the day when the sun shone out, by the boun-

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dary where the half of the globe at any time enlightened by the sun was parted from the other half in the shade; the enlightened parts of the terrestrial globe answering to the like enlightened parts of the earth at all times. So that, whenever the sun shone on the globe, one might see to what places it was setting, and all the places where it was then day or night throughout the earth." Having been introduced to Sir James's sister, Lady Dipple, he was induced at her suggestion to attempt the drawing of patterns for ladies' dresses, in which he soon became quite an adept. "On this," says he, "I was sent for by other ladies in the country, and began to think myself growing very rich by the money I got for such drawings; out of which I had the pleasure of occasionally supplying the wants of my poor father." He still continued, however, his astronomical studies, making observations on the stars, as usual, with his beaded threads, and delineating on paper the apparent paths of the planets as thus ascertained. So excited would he become while thus engaged, that he often conceived, he says, that he saw the ecliptic lying like a broad highway across the firmament, and the planets making their way in "paths like the narrow ruts made by cart-wheels, sometimes on one side of a plane road, and sometimes on the other, crossing the road at small angles, but never going far from either side of it."

He does not appear to have ever given his heart to painting, and notwithstanding his success, he even made various attempts to escape from it as a profession altogether. When he had only been about two years in Edinburgh, he was seized with so violent a passion for the study, or at least the practice, of medicine, that he actually returned to his father's, carrying with him a quantity of pills, plasters, and other preparations, with the intention of setting up as the Æsculapius of the village. But it would not do. Of those who took his medicines very few paid him for them, and still fewer, he acknowledges, were benefitted by them. So he applied again to his pencil; but, instead of returning immediately to Edinburgh, fixed his residence for a few months at Inverness. Here he employed his leisure in pursuing his old and favorite study of astronomy; and having discovered by himself the cause of eclipses, drew up a scheme

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for showing the motions and places of the sun and moon in the ecliptic on each day of the year, perpetually. This he transmitted to the celebrated Maclaurin, who found it to be very nearly correct, and was so much pleased with it that he had it engraved. It sold very well, and Ferguson was induced once more to return to Edinburgh. He had now a zealous patron in Maclaurin, and one extremely disposed to assist him in his philosophical studies.

His mind was now becoming every day more attached to philosophical pursuits; and, quite tired, as he says, of drawing pictures, in which he never strove to excel, he resolved to go to London, in the hope of finding employment as a teacher of mechanics and astronomy. Having written out a proof of a new astronomical truth which had occurred to him, namely, that the moon must move always in a path concave to the sun, he showed his proposition and its demonstration to Mr. Folkes, the President of the Royal Society, who thereupon took him the same evening to the meeting of that learned body. This had the effect of bringing him immediately into notice.

In 1763 he was elected a Fellow of the Royal Society; the usual fees being remitted, as had been done in the cases of Newton and Thomas Simpson. He died in 1776, having for many years enjoyed a distinguished reputation both at home and abroad; for several of his works had been translated into foreign languages, and were admired throughout Europe for the simplicity and ingenuity of their elucidations. Of his Dialogues on Astronomy, Madame de Genlis says, "This book is written with so much clearness, that a child of ten years old may understand it perfectly from one end to the other."

The faculties of distinct apprehension and luminous exposition belonged, indeed, to Ferguson in a pre-eminent degree. He doubtless owed his superiority here in a great measure to the peculiar manner in which he had been obliged to acquire his knowledge. Nothing that he had learned had been set him as a task. He had applied himself to whatever subject of study engaged his attention, simply from the desire and with the view of understanding it. All that he knew, therefore, he knew

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thoroughly, and not by rote merely, as many things are learned by those who have no higher object than to master the task of the day.

It was, as has been stated, the accident of the roof of his father's cottage coming down, while he was a child, that first turned Ferguson's attention to mechanical contrivance. Such are the chances which often develope genius, and probably even give it in part its direction and peculiar character.

EDUCATION

From an Address of the Rev. W. C. Larrabee.

EDUCATION is a very comprehensive term. It includes the whole course of physical, moral, religious, and scientific instruction and discipline. Its power is exerted both on the body and the mind. *Physical* education consists in that system of corporeal discipline, by which the powers of the body are brought to perfection, and its faculties fully developed, and by which we acquire vigor and health, with a constitution suited to the active business of life. This is best promoted in early life, by free indulgence in the unrestrained sports, and innocent amusements of childhood. The constitution is much injured by restraint, and especially by want of exercise in the open air.

Moral education must be commenced in early life. That system of instruction and discipline, which gives us a sensitive knowledge of the distinction between right and wrong; which fixes in the mind a sacred regard for the immutable principles of truth, justice, and moral integrity, and which erects in the soul a strong fortification against irregular and vicious habits, can never be successfully commenced, after an individual is old enough to be brought under the influence of our higher seminaries. The foundation of the moral character must be laid under the inspection of the watchful parent. The affectionate, yet keen eye of the mother must detect in the cradle the propensities which need restraint, and discover the various developements of the disposition. It is too late to reform a child when he is old enough to enter an academy or college. The moral character has, by this time, become so firmly established, ed, that material changes in the habits cannot be expected.

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The first great object of a scientific and literary education is, to expand and strengthen the intellect—to cultivate and improve the mind. This object is not always kept in view. Many, in a course of instruction, have respect only to those studies, which give a superficial knowledge of a few subjects connected with some particular business or profession. Many a student is satisfied with a mechanical knowledge of those sciences indispensably necessary to transact the ordinary business of life. If we would encourage him to follow up the stream of science to its fountain head, and from thence trace, through all their meandering courses, the thousand rivulets which issue from it, he meets us with the question, What use will it be to me? Is it of no importance to you, by a course of studious discipline, to acquire command over your own mind, so as to bring it to bear on any subject you please? Will it be of no use to you to develope the resources of the mind, to bring its powers to maturity, and to make it what it was designed to be, the greatest, the noblest work of God? Who has measured the extent of the powers of the human mind? Who knows the force and enery of its operations? Follow it in its bold and daring flights: see it bringing the heavens down to the earth, and subjecting to its examination planets, and suns, and systems of worlds of endless variety. Escaping from its earthly home, it darts away beyond the borders of our own world, to the distant regions of space, where Saturn, the exiled monarch, reigns over his attendant moons, or far distant Herschel pursues his tedious and solitary way, or the fixed stars from age to age pour their brilliant rays upon the worlds which revolve about them. The powerful mind of Newton extends its irrevocable laws over the earth, the sun, and wandering comet. The dominion of mind is more extensive and lasting over the world of men, and often more effective and powerful in its control, than ever was the sceptre of the mightiest monarch. Alexander conquered the world; but no sooner was he dead, than the subdued nations returned to their former state. But Aristotle, his preceptor, by the mere energy of his mind, exercised unlimited control over the opinions of men for sixteen centuries. All the projects and plans of conquest of Charles the Fifth, terminated at his retire-

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ment from power; but in his time, Luther, a man in the common rank of life, but of a giant mind, commenced the Reformation. At his word, as if by magic touch, the world arose from its long sleep of a thousand years. The impress of his mind was stamped on the reformation, and his influence will be felt, till the glories of the millennial day shall consummate his labors.

The works of human art and grandeur perish. The trophies and monuments of victory, the splendid domes and edifices of antiquity have crumbled to dust; but the imperishable works of mind still remain. The land of Æneas, with its Xanthus and Ida, would have been hidden in oblivion, and the heroes who fought on the plains of Troy would have been forgotten, had not their fame and fate been rendered imperishable by the powerful genius of the Grecian bard. Greece, with her Parnassian hills, Tempean vales, and Arcadian groves, her warlike cities and brave souls, would scarcely have been known to us, but for the eagle genius of her poets, the acute investigations of her philosophers, and the thrilling energy of her orators. Virgil, Cicero, and Tacitus, by their mental efforts, have done more to make their country remembered, than Cæsar, with all his conquests, and Augustus, with all his power. When in future ages the British empire shall have become what the Roman is now, and Cromwell forgotten, and the conqueror of Waterloo scarcely named, Milton and Scott will continue to be read and admired, and to recall the fast fading images of other times. And the time may come, when the monument on Bunker's Hill shall have crumbled to dust, and even the "Father of his country" be all but forgotten, while the philosophical trophies of Franklin, and the intellectual monuments of those, whose powerful minds have been devoted to the interests of science and literature, shall still remain, more imperishable than marble or granite, to tell future generations what we have been.

It would be well for us occasionally to cast our eyes on the monuments and trophies of the human intellect, in order to show us what may be done, and to stimulate us to enterprise. It is said of Themistocles, that after the celebrated battle of Marathon, being asked by his friends the reason of his apparent solicitude, he answered, "the trophy of Miltiades will not let me sleep or be

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idle."—I would that, in like manner, the intellectual honors, which others have acquired, might so stimulate the youth of this seminary, as to bring into exercise the yet latent powers, which the God of nature has given them. No doubt there is in this assembly enough of genius, of latent talent, of undisciplined intellect, to accomplish any, or all of the noble projects to which we have alluded. Many a mind that now passes for an ordinary one, may, by a proper course of discipline, penetrate more keenly into the mysterious operations of nature than Newton, or soar higher among the lightnings of heaven than Franklin.

It is a remark of Addison, that the human mind, without education, is like the statue in the block of marble. From the block of ever so shapeless and unpromising an exterior, the skilful sculptor may bring out the breathing form. So it is with the mind. The embryo philosopher, poet, and orator, may be concealed in many an uncultivated and awkward student. In apparently the coldest breast, and dullest head, there is a spark of intellectual fire, which, if we can by some fortunate collision bring it out, may be kindled up to a great flame. There is a very common and fatal error respecting this subject. We usually ascribe all the success of great minds to the influence of a certain intangible, invisible, indescribable agent, which we call GENIUS. An intimate acquaintance, however, with the character of those, who have, in every age, shone as stars of the first magnitude, and a minute knowledge of their history, would convince us, that what Newton said of himself was true of others; that their success depended, not on any special genius which nature had given them above other men, but on mental discipline, and persevering industry. Every thing depends upon the proper developement of the faculties, and discipline of the powers of the mind. The strongest powers can avail nothing without proper discipline—the weakest, with such discipline, may accomplish the noblest efforts. Should nature give us the body of a giant, without exercise and discipline, our limbs would always retain the weakness of infancy. Just so it would be with the mind. It is necessary to subject it to such a course of study, as shall bring to maturity its noble powers, and give it energy sufficient to keep its faculties in constant operation.

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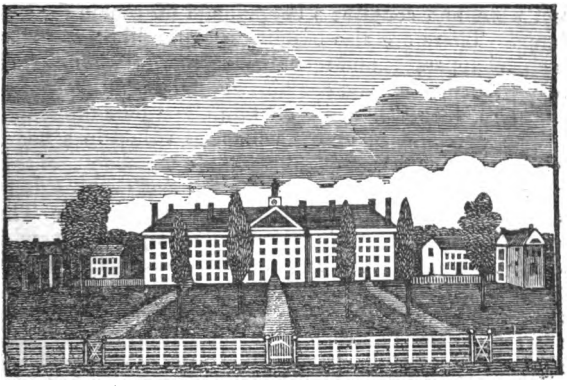
VIEW OF LITERARY INSTITUTIONS.



NASSAU HALL, PRINCETON, N. J.

SITUATED in a healthy and delightful region, nearly central as to the two largest cities in the union, and easily accessible in a few hours from either, Princeton appears peculiarly adapted to be the seat of an extensive seminary. These advantages have been so well seconded by the ability of the gentlemen who at different times have filled the chairs in Nassau Hall, that a large number of students has been annually drawn thither, among whom we find the name of some of our most distinguished men;—and the college of New Jersey has been enabled to maintain, for the greater part of a century, an honorable rank among the literary institutions of the land. The college was founded in 1746, and was first established at Elizabethtown; the next year it was removed to Newark, and the following year it was incorporated by a royal charter, with the title of Nassau Hall. It remained at Newark for ten years, till 1757, when the superior advantages enjoyed by Princeton, led to its removal and permanent establishment there. In 1812 the theological seminary of the Presbyterian church in the United States, was also established at Princeton; and shortly afterwards that of the Associate Reformed Church was united with it, so that between the academic and the theological departments the insti-

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tion is a very extensive one. The college edifice of Nassau Hall is four stories high, 175 feet long, and 50 feet wide, and contains a chapel, and 60 rooms for students. There are also buildings for the library, philosophical apparatus and recitation rooms. The library is very well selected, and contains eight thousand volumes, and the students' libraries contain about four thousand.

The government of the college is vested in a board of trustees, consisting of twenty-three members; of this board, the governor of the state is *ex-officio* president, and one half of the remainder are clergymen. The executive government is composed of a president, who is also teacher of theology and moral philosophy; a vice president, who is professor of languages and belles-lettres; a professor of mathematics and natural philosophy; a professor of chemistry and natural history; and three tutors. The theological seminary is accommodated in a separate edifice calculated for one hundred students.

It has three professors, and a library of six thousand volumes. Candidates for admission are required to produce testimonials of good natural talents, of good moral and religious character, of belonging to some regular church, and of having passed through a regular course of academical studies. Tuition and the use of the library are afforded, free of expense to every student, and there is a charitable fund for aiding the indigent. A residence of three years is required to complete the course of study. The usual number of students in the theological department is ninety, and the whole number of graduates about five hundred and fifty.

In Nassau Hall there are about one hundred students. Commencement is on the last Wednesday in September. There are two vacations, viz. from Commencement six weeks, and from the middle of April six weeks

New-York, October, 1832.

Grace is glory begun, and glory is grace made perfect Grace is the first degree of glory, glory is the highest degree of grace. Grace is the seed, glory is the flower: grace is the ring, glory is the sparkling diamond in the ring: grace is the glorious infant, and glory is the perfect man of grace: grace is the spring, glory is the harvest. DYER.

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USEFUL AND ENTERTAINING EXTRACTS.

RETIREMENT.

To the thinking mind, retirement is a feast, a kind of holiday to the soul—a culling and gathering of fruits, for the winter of age—and a collection of strength for new and unavoidable attacks. He who is never alone, who finds no time for looking into the arcana of his own thoughts, has not learned the true art of living, and is the sport of the winds and waves of temptation, without any ballast or helm. He who lives away in the world, lives not at all: he is like the dancing meteor, never stationary; or "like a wave of the sea, driven with the wind and tossed." He is restless and cannot tell why—grasping at something ahead which he never attains; and "walking through dry places seeking rest and finding none." He wonders what all the world are about; and when he meets with a sober man of retiring habits, thinks him a monk, and wonders what sort of a world he was made to inhabit! To such a man retirement would be misery—for to be alone is what of all things he most dreads. But to love retirement, it must habitually be cultivated. To love the company of one's self, is no small attainment; and frequent converse can alone accomplish it. There are persons who from childhood seem constitutionally formed for retirement—who seem to shrink from society, and draw all their comforts from solitude; who heed not the bustlings of the world, and seek not its pleasures; such are generally thinking beings; and they think to some advantage. They go into the crowd to "gather up the fragments;" and they retire from it to cull them out, and assign each its proper place. They mingle with their fellow men, to learn the diversity of character in the jumbled mass; and they talk with themselves to ascertain how far the heart of man answers to theirs, how they can be benefitted by the mistakes of others, and the best method of correcting their own.

The benefits of retirement are great—truly so. They soften the passions, produce a contentedness, a rational indifference to the opinion of the world, and bring the mind under that close discipline which fits it for the severest exercise.—There probably never was a well designed composition, fitted to do good, but was written by

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a lover of solitude. There never was a being eminently qualified for society, but learned his best lessons in retirement.

I saw a youth, so constantly alone with his books, that even his parents were apprehensive that he was getting deranged.—He built him a temporary covering upon the side of a woody hill, where he took his book, and his pitcher of water, and bread—his lamp and his blanket, and spent the live long day—and often the night. There he read, thought, and digested, till he attained great things. He never spoke without he had something to say, and his words were words of wisdom. He was mild, sociable when he could meet with a reciprocal mind, who had now and then an original idea to exchange; otherwise he withdrew from observation. He became celebrated for his originality of expression in speaking and writing—was applauded with the highest honors in the college where he graduated—yet, to ordinary minds, he passed for a solitary, unhappy, isolated being.

TRUST IN GOD.

THE grandeur of religion appears more conscious, it attains a sublimer attitude, and shines with a surpassing majesty all its own, when employed in solacing and sustaining the Christian under distress and personal bereavement. When his family are torn from him by the cold, rude hand of death, or a valued friend drops into the grave without any intimation of the change, and deprives him of all he loved below; he appears a wanderer, a sort of solitary detachment of humanity, to himself,—disconsolate, unknown—were it not for that blissful assurance, that the separation is only temporary, and that there is a time coming which will usher in a resurrection of the just by Him who on earth declared, I am the resurrection and the life; he that believeth in me, though he were dead, yet shall he live.

Religion, which abounds with precepts for his entire trust in God, enables him also to bear with patience and pious resignation, the troubles and perplexities of life. While it inculcates adherence to duty, constancy in virtue, and dependence upon God, it no less frequently expresses, in animating strains, the immortality of reason,

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able natures, and the future inheritance of the righteous. This has been the joy and solace of good men in every age, their constant light in darkness, their unfailing comfort in adversity, their perpetual support under persecution. The most apparently insurmountable obstacles and formidable difficulties, have dwindled into insignificance and empty shadow, equally unsubstantial, when brought into competition with everlasting life, and the promised crown. The hope of a future state, and the cheering certainty of its near approach, have in every period of time, when this celestial beam of consolation had dissipated the horrible darkness by which reason is enveloped, and through which it ineffectually essays to pierce and penetrate beyond, made captivity freedom, slavery liberty, and thrown around the exile the attractions and endearments of domestic life. This untroubled lustre, this distant brightness, has guided with intrepidity the martyr to the stake, and the Christian hero to crucifixion and death in every shape. In the present day, this is the humble Christian's steadfast succor, his exhaustless fount of consolation, when distressed and forlorn, when deprived of his dearest relations, and nearest ties of affection and consanguinity; for what else can strengthen and revive him?

"When friends have vanished from their viewless home,
And he is left companionless to roam,
O! what can cheer his melancholy way,
But hopes of union in the land of day?"

When surrounded by complicated difficulties, and encompassed by dangers, while traversing this "vale of tears," the thorny wilderness of time, the pious Christian is assured in the word of God, "that all things work together for good, to them that love God, and are called according to His purpose."

HOME.

THERE is more of spell-work about the homes of our fathers than he who has never been a wanderer imagines. Ask the poor exile on a foreign shore what visions flit across his fancy and call forth the deep drawn sigh as he gazes silent and lonely on the midnight moon; and he will tell you, in the fullness of his heart, they are

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the visions of his infantile home, of which the beautiful moon is all that is left him. Though his path be across the ocean, though he wander among the icebergs of Iceland, or sit down in the far-off islands of the sea, he fevls that he never can out-travel the remembrance ot his native village, or forget the delight of his early cottage. Though ambition lead him to foreign lands, or fortune tempt him into the world of business, he will often pause; even when success has gratified his wishes —and linger whole hours on the remembrance of days gone by, as they steal, in the language of the Bard of Morven, like music to the soul. He will delight in every bush and tree, and flowering landscape and singing bird, that resembles those he saw in youth: and if in the fartherest corner of the globe he hear the gentle breathings of a strain with which on his native hills he was familiar, what a world of sweet yet half melancholy joy kindles in his bosom!

Yes, home is still dearer to our heart; and, like the comet exiled from the sun, we would go but to return, and never grow so old nor wander so far as to be beyond its attraction.

BEAUTIES OF TREES.

WHAT can be more beautiful than the trees? Their lofty trunks, august in their simplicity, asserting, to the most inexperienced eye, their infinite superiority over the imitative pillars of man's pride, their graceful play of wide spreading branches, and all the delicate, and glorious machinery of buds, leaves, flowers, and fruit, that, with more than magical effort, burst from the naked and rigid twigs, with all the rich and heaven breathing delectable odors, pure and animating essences, pouring out spices and medicinals, under brilliant and unimaginably varied colors, and making music, from the softest and most melancholy undertones to the full organ peal of the tempest. We wonder not that trees have been the admiration of men in all periods and nations of the world. What is the richest country without trees? What barren and monotonous spot can they not convert into a paradise? Xerxes, in the midst of his most ambitious enterprise, stopped his vast army to contemplate

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the beauty of a tree. Cicero, from the throng, and exertion, and anxiety of the forum, was accustomed, Pliny tells us, to steal forth to a grove of plane trees to refresh and invigorate his spirits. In the Scaptan grove, the same author adds, Thuycidides was supposed to have composed his noble histories. The Greek and Roman classics, indeed, abound with expressions of admiration of trees and woods, and with customs which have originated in that admiration: but above all as the Bible surpasses, in the splendor and majesty of its poetry, all books in the world, so is its sylvan arborescent imagery the most bold and beautiful. Beneath some spreading trees are the ancient patriarchs revealed to us, sitting in contemplation, or receiving the visit of angels;—and what a calm and dignified picture of primeval life is presented to our imagination at the mention of Deborah, the wife of Dapidoth, judging the twelve tribes of Israel, between Raman and Bethel, in Mount Ephraim, beneath the palm tree of Deborah. The oaks of Bashan, and the cedar of Lebanon, are but other and better names for glory and power. The vine, the olive, and the fig-tree, are imperishable emblems of peace, plenty and festivity. David in his psalms, Solomon in his songs and proverbs, the prophets in the sublime outpourings of their awful inspiration, and Christ in his parables, those most beautiful and perfect of all allegories, luxuriate in signs and similies drawn from the fair trees of the east.

SADNESS.

THERE is a mysterious feeling that frequently passes like a cloud over the spirits. It comes on the soul in the social circle, in the calm and silent retreats of solitude. Its powers are alike supreme over the weak and iron-hearted. At one time it was caused by the flitting of a single thought across the mind. Again, a sound will come booming across the ocean of memory, gloomy and solemn as the death knell, overshadowing all the bright hopes and sunny feelings of the heart. Who can describe it, and yet who has not felt its withering influence? Still it is a delicious sort of sorrow; and like a cloud dimming the sunshine of a river, although causing a momentary shade of gloom, it enhances the beauty of returning brightness.

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MEMORY.

PAINFUL, and even melancholy as it oftentimes may be, how frequently does the mind love to turn back upon the scenes that are gone by. How often are the thoughts drawn, insensibly as it were, from the darkness of the future to the twilight of the past—to scenes that but faintly glimmer through the cold and sombrous lapse of days, and months, and years! A pleasing melancholy comes over the full soul, as the "green spots on the desert of life" come up before the eye of the imagination, and ties as strong as those of "first love" bind as unconsciously to scenes where once centered all our joys. Such are the reminiscences of childhood and youth; such are the forms pictured upon the sunny surface of the past—when the heart beats joyously—when every path was strewed with flowers—when all above was a cloudless sky—and when all around us was sunshine! If ever a man enjoys happiness, it is in the spring-time of life, when his hope first begins to bud and blossom. To his illusive eye the future appears bright as the visions of an elysian dream. But soon the frost of disappointment comes—old age "steals along with silent tread"—and all but the recollection of enjoyment perishes.

Still memory, like every thing else connected with our worldly enjoyment, has its pleasures and its pains—its joys and its sorrows. The latter too often hold a melancholy predominance. Memory's page is the record of events which have marked our chequered course of life. It is that "simple, unvarnished tale of truth," which reminds of the joys or sorrows that are passed—

> ——"Of hopes deceived;
> Of faded dreams of bliss;
> Of joys we vainly had believed
> Were in a world so drear as this."

It tells of the time when pleasure "led us captive at her car," and when youthful hope, "the music of the mind," tuned to all its charms. The tenor of our past life may have been almost unvarying; yet moments of sadness have sometimes interrupted its evenness, and the memory steals upon us like a dizziness upon the brain. Some object around which our hopes clustered may have vanished when almost within our grasp. We felt the keenness of disappointment, and even now the remem-

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brance brings sadness to the soul. We may have seen the grave close over those whom we loved, and that grave seemed the sepulchre of our hopes! It is human nature—it is venal weakness.

CHIDING for occasional errors, or foibles, is not the office of friendship among equals. In the careful parent, forming the habits and so the whole character of his child, the case may perhaps be otherwise. But he who by a long and careful study of his friend's character, discovers his habitual faults, his prominent and besetting weaknesses or sins, and with a kind fidelity reproves them, has done that for which nothing but the same important offices can at all repay him.

POETRY AND MUSIC.

[Written for the Monthly Repository and Library of Entertaining Knowledge.]

THE DYING BOY'S BEQUEST.

BY MRS. L. H. SIGOURNEY.

Half rais'd upon his couch,—his drooping head
Lean'd upon his mother's bosom, like a bud
Which broken from the parent stalk, adheres
By some alternate fibre.—His thin hand
From 'neath the fever'd pillow drew a book
And slowly prest it to his bloodless lip.
——"Mother, dear mother! see your birth-day gift,
Fresh and unsoil'd.—Yet have I kept your word,—
And ere I slept each night, and every morn
Did read its pages with an humble prayer
Until this sickness came.—
He paus'd,—for breath
Came scantily, and with a toilsome strife.
——"Brother or sister have I none,—or else
I'd lay this Bible on their heart, and say
Come read it at my grave, among the flowers:—
So you who gave must take it back again,
And love it for my sake.'
"My son!—my son!
Whisper'd the mourner in that tender tone
Which Woman in her sternest agony
Commands, to sooth the pang of those she loves,—
"Your soul!—your soul!—to whose charge yield you that?"
"*To God who gave it.*"
So that bursting soul
With one slight shudder, one seraphic smile
Left the pale clay for its Creator's arms.

HARTFORD, Conn.

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HYMN TO THE NORTH STAR.

BY WILLIAM CULLEN BRYANT.

The sad and solemn night
Has yet her multitude of cheerful fires;
The glorious hosts of light
Walk the dark hemisphere till she retires:
All through her silent watches, gliding slow,
Her constellations come, and round the heavens, and go.

Day, too, hath many a star
To grace his gorgeous reign, as bright as they:
Through the blue fields afar,
Unseen, they follow in his flaming way:
Many a bright lingerer, as the eve grows dim,
Tells what a radiant troop arose and set with him.

And thou dost see them rise,
Star of the Pole! and thou dost see them set;
Alone, in thy cold skies,
Thou keep'st thy old unmoving station yet,
Nor join'st the dances of that glittering train,
Nor dipp'st thy virgin orb in the blue western main.

There, at morn's rosy birth,
Thou lookest meekly through the kindling air
And eve, that round the earth
Chases the day, beholds thee watching there;
There noontide finds thee, and the hour that calls
The shapes of polar flame to scale heaven's azure walls.

Alike, beneath thine eye,
The deeds of darkness and of light are done;
High towards the star-lit sky
Towns blaze—the smoke of battle blots the sun—
The night-storm on a thousand hills is loud—
And the strong wind of day doth mingle sea and cloud.

On thy unaltering blaze
The half-wrecked mariner, his compass lost,
Fixes his steady gaze,
And steers, undoubting, to the friendly coast;
And they who stray in perilous wastes, by night,
Are glad when thou dost shine to guide their footsteps right.

And, therefore, bards of old,
Sages, and hermits of the solemn wood,
Did in thy beams behold
A beauteous type of that unchanging good,
That bright eternal beacon, by whose ray
The voyager of time should shape his heedful way.

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WHERE ARE THE FRIENDS OF MY YOUTH?

Long years had elapsed, since I gazed on the scene
Which my fancy had robed in its freshness of green,
The spot, when a schoolboy, all thoughtless, I strayed
By the bank of the stream, in the gloom of the shade.
I thought of the friends who had roamed with me there,
When the sky was so blue, and the flowers were so fair;
All scattered—all sundered, by mountain and wave,
And some in the cold, silent womb of the grave.
I thought of the river, all stirless, and bright
As the face of the sky in a mild summer night;
And I thought of the trees under which we had strayed,
Of the broad leafy boughs, with their coolness of shade;
And I hoped, though disfigured, some token to find,
Of the names, and the carvings, impressed on the rind.—
All eager I hastened the scene to behold,
Rendered sacred and dear, by the feelings of old;
And I deemed, that unaltered my eye should explore,
This refuge, this haunt, this Elysian of yore.—
'Twas a dream.—Not a token, or a trace could I view,
Of the names that I loved, of the scenes that I knew,
Like the shadow of night, at the dawning of day,
Like a tale that is told, they have vanished away.
And I thought the lone river that murmured along,
Was more dull in its music, more sad in its song,
Since the birds that had nested, and warbled above,
Had all fled from its bank, at the fall of the grove.
I paused—and the moral came home to my heart:
Behold how of earth all the glories depart!
Our visions are baseless—our hope but a gleam—
Our staff but a reed, and our life but a dream.
Then oh! let us look, let our prospect allure
To scenes that can fade not, to realms that endure;
To glories, to blessings that triumph sublime,
O'er the blightings of change, and the ruins of time.

AN AUTUMNAL EVENING THOUGHT.

Why sighs my pensive spirit, as alone
It marks, in lonely thought, the wind's wild sweep
Through the leaf-shaken branches?—Music deep
Of plaintive Autumn!—ah! its saddened tone
Revives a silent echo: for, to me,
Those falling leaves—that mournful minstrelsy,
Thy voice, lone spirit of the autumn blast!
Tell of Time's changes,—life's oft varying hue;
Bend pensive thought on tracings of the past,
And o'er the future's wide and misty view.
Then anxious cares my drooping mind o'ercast.—
Vain cares—best left where Faith's high trust is due;
O may this earth-bound soul be *there* forgiven,
And place its strength anew, in ALL-SUSTAINING HEAVEN.

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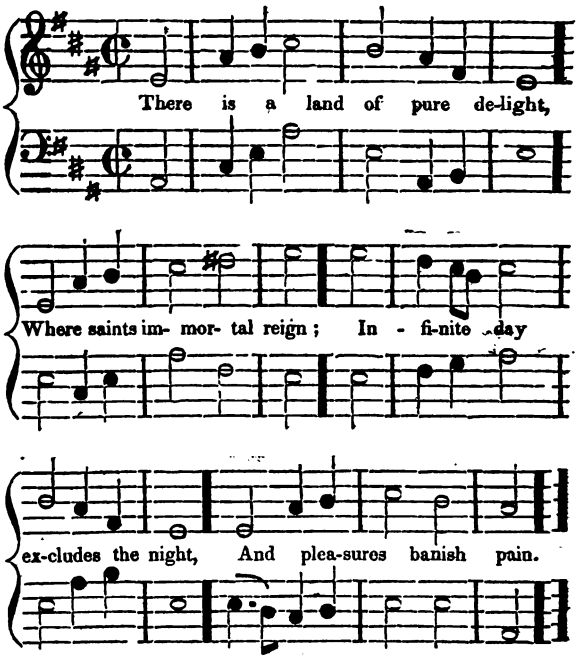
THE HAPPY LAND



There everlasting spring abides,
And never withering flowers;
Death, like a narrow sea divides
This heavenly land from ours.

Sweet fields beyond the swelling flood,
Stand dress'd in living green;
So to the Jews old Canaan stood,
While Jordan roll'd between.

Could we but climb where Moses stood,
And view the landscape o'er,
Not Jordan's stream, nor death's cold flood,
Could fright us from the shore.

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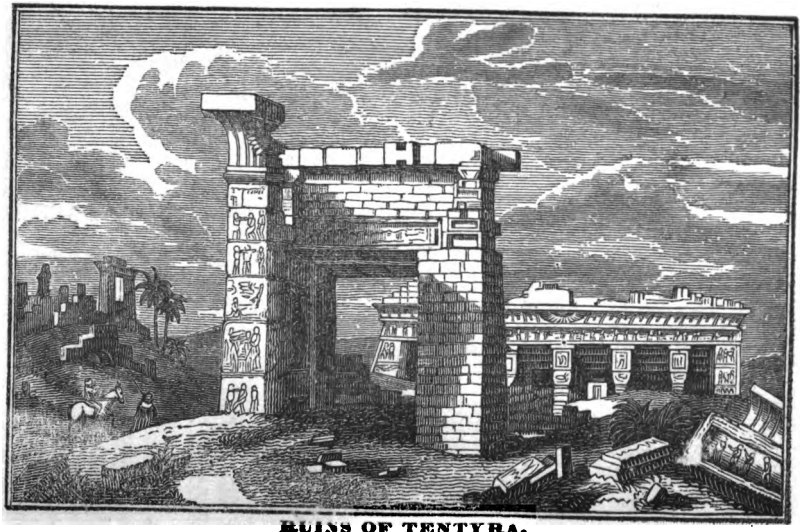

RUINS OF TENTYRA,

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THE

MONTHLY REPOSITORY,

AND LIBRARY OF

Entertaining Knowledge.

VOL. III. NOVEMBER, 1832. No. 6

MECHANICAL LABORS OF THE ANCIENT EGYPTIANS.

RUINS OF TENTYRA.

The history of Egypt presents nothing more wonderful than the magnitude and durability of the public works which were accomplished by her ancient inhabitants. When we view the intricacies of the Labyrinth, or endeavor to realize the vast conception of the Pyramids, we are at a loss to imagine what principles could have made her architects so prodigal of labor and expense. They appear to have planned their structures for the admiration of the most distant posterity, and with the view of rendering the fame of their mechanical labors coeval with the existence of the globe. It is supposed by some that religion must have been their ruling spirit. And it has been suspected that that tenet in their belief, which assured them of the return of the soul at some future period to reanimate the body it once inhabited, induced them to take such extraordinary precautions to preserve the remains of their princes and great men in an entire and uncorrupted state. Indeed, there can be little doubt that Egypt is indebted to the mythological tenets of her ancient sages, for those magnificent architectural wonders, which still distinguish her from the rest of the earth. And it is very remarkable of this people, that all their great efforts were made at a time, when in regard to religious faith, they were in the

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grossest ignorance and darkness, and that when light sprang up around them, their power seemed to decay—yielding to the domination of barbarian tribes, who were indebted to them for all their knowledge. Persia added nothing to the mechanical arts or architectural improvement of Egypt; the Greeks presumed not to rival their masters in the construction of temples, pyramids, and labyrinths; and the propagation of the Christian religion put an end to the lofty imaginations which the subjects of the Pharaohs were wont to realise in their national structures. This last contributed most of all to the extinction of that spirit which had impelled the Egyptians to undertake and carry into effect designs so vast and imperishable as those which still excite the astonishment of the traveller. The days of their mythology were those of their proudest glories. The belief in the divine origin of their kings, and also the dogma that the soul was to return to its ancient tenement in the flesh, encouraged them to erect monuments which might reject the pressure of ten thousand years, and carry the fame of their authors to the very threshold of eternity. But when the exercise of their primitive superstition was no longer allowed, the temples were gradually abandoned, and the spirit of the people yielded to a more prevailing power. Besides those immense works which display the gigantic glans and mechanical resources of the ancient Egyptians, the ruins of Tentyra and Thebes furnish specimens of the finer arts of architecture, statuary and painting, which still delight the eye of the traveller of taste.

As the frontispiece of the present number, we have selected a view of the ruins of the ancient Tentyra, with its magnificent temple and gateway. Speaking of these wonderful exhibitions of mechanical skill, Champollion says, "All that I had ever seen, all that I had ever admired, appeared miserable in comparison with the gigantic conceptions by which I was surrounded. I shall take care not to attempt to describe any thing; for either my description would not express a thousandth part of what ought to be said, or, if I drew even a faint sketch, I should be taken for an enthusiast or perhaps for a madman." Denon, the friend and companion of Bonaparte, is still more enthusiastic; in his splendid work on Egypt

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he thus gives utterance to his feelings: "I wish I could here transfuse into the soul of my reader, the sensations which I experienced. I was too much lost in astonishment to be capable of cool judgment; all that I had hitherto seen served here but to fix my admiration. I felt that I was in the sanctuary of the arts and sciences. How many periods presented themselves to my imagination at the sight of such an edifice! How many ages of creative ingenuity were requisite to bring a nation to such a degree of perfection and sublimity in the arts; and how many more of oblivion to cause these mighty productions to be forgotten, and to bring back the human race to the state of nature in which I found them on this very spot! Never was there a place which concentred in a narrower compass the well marked memorials of a progressive lapse of ages. What unceasing power, what riches, what abundance, what superfluity of means must a government possess, which could erect such an edifice, and find within itself artists capable of conceiving and executing the design of decorating and enriching it with every thing that speaks to the eye and the understanding! Never did the labor of man show me the human race in such a splendid point of view; in the ruins of Tentyra, the Egyptians appeared to me giants. I wished to take every thing on paper, but I could hardly venture to begin the work; I felt that not being able to raise my powers to the height which was before my admiring eyes, I could only show the imperfection of the imitative art. I was confused by the multiplicity of objects, astonished by their novelty, and tormented by the fear of never again visiting them. On casting my eyes on the ceilings, I had perceived Zodiacs, planetary systems and celestial hemispheres, represented in a tasteful arrangement; I saw that the Supreme Being, the first cause, was every where depicted by the emblems of his attributes; and I had but a few hours to examine, to reflect on and to copy what it had been the labor of ages to conceive, to put together and to decorate; with my pencil in my hand I passed from object to object, distracted from one by the inviting appearance of the next, constantly attracted to new subjects and again torn from them. I wanted eyes, hands and intelligence vast enough to see, copy and reduce to order, the multitude of strik-

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ing images which presented themselves before me. I was ashamed at representing such sublime objects by such imperfect designs, but I wished to preserve some memorial of the sensations which I here experienced."

It was from the ceiling of the temple of Tentyra that the famous Egyptian Zodiac was taken by Napoleon and carried to Paris. From the astronomical drawings on this Zodiac, mathematicians have concluded that it must have been formed in the first century of the Christian era. The reign of Tiberius has been fixed on as the period of the construction of the building; and a time when the summer solstice was in Cancer as the date when the Zodiac was carved; whence it follows that the period in question could not be far removed from the birth of Christ.

For a minute description of Tentyra. and for much valuable information on other matters connected with Egyptian antiquities, see Russell's Egypt, 23d vol. Harper's Family Library.

CABINET OF NATURE.

FALLS OF NIAGARA.

BY REV. F. W. P. GREENWOOD.

[*Concluded from page* 116.]

Retrace your steps to the upper bank, and then, if your strength holds out, proceed a short way further to the enjoyment of a view, already referred to, which excels every other in this place of many wonders. It is obtained from a bridge or platform, which has recently been thrown out over some rocks,* and is carried to the very brink of the Horseshoe Fall, and even projects beyond it, so that the spectator at the end of the platform is actually suspended over it. And if he is alone, and gives way to his feelings, he must drop upon his knees, for the grandeur of the scene is overpowering. The soul is elevated, and at the same time subdued as in an awful and heavenly presence. Deity is there. The brooding and commanding Spirit is there. "The Lord is upon many waters." The heights and the depths,

* These are called the Terrapin Rocks.

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the shadows and the sunlight, the foam, the mist, the rainbows, the gushing showers of diamonds, the beauty, and the power, and the majesty all around and beneath, environ the spirit with holiest influences, and without violence compel it to adore. "Deep calleth unto deep." The cataract, from its mysterious depths, calleth with its thunder, back to the deep lake, and up to the deep sky, and forward to the deep ocean, and far inward to the deep of man's soul. And the answer of the lake, and the answer of the sky, and the answer of the ocean, are praise to the Maker, praise to Him who sitteth above the water-flood, praise to the Almighty God! And where is the soul which will not also hear that call, and answer it even with a clearer and louder answer, and cry, Praise to the Creator, praise to the infinite and holy, and blessed God!

These Falls are not without their history; but, like their depths, it is enveloped with clouds. Geologists suppose, and with good apparent reason, that time was when the Niagara fell over the abrupt bank at Queenstown, between six and seven miles below the place of the present Falls, and that it has, in the lapse of unknown and incalculable years, been wearing away the gulf in the intermediate distance, and toiling and travelling through the rock, back to its parent lake. The abrupt termination of the high bank and table land at Queenstown; the correspondence of the opposite cliffs to each other all the way up to the Falls; the masses of superincumbent limestone, which both the American and Canadian cataracts hurl, from time to time, into the boiling abyss,* all seem to favor this supposition. But when did the grand journey begin? When will it end? How vain to ask! How momentary human life appears, when we give our minds to such contemplations! Where was the cataract toiling in its way, when none but the

* Within a few years several pieces of the upper stratum have been thrown down. The waters, however are now obliged to act upon a surface three times wider than that which formerly sustained them, and the limestone is becoming more and more compacted with the harder chert, as they approach Black Rock. Their retrocession must therefore be slow, beyond the power of computation. Beneath the limestone strata, there is a layer of loose shale, which is easily washed away, and which is always first hollowed out before the limestone falls.

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awe-struck Indian came to bow before its sublimity? Where was it, when the moss-buried trunk, which now lies decaying by its borders, was a new sprung sapling, glittering with the spray-drops which fed its infant leaves? Where was it, before the form of a single red man glided through the forest? Where was it, when lofty trees stood by it in the intimate sympathy of centuries, which long since have been resolved into earth? Where was it, when winds and clouds were its only visiters; and when the sun and blue heaven by day, and the moon and stars by night, alone looked down and beheld it, the same as they do now? And is not science blind and foolish, when, being in her elements and leading-strings, she lisps impiety, instead of prayer?

Four days flew by us like the waters of the rapids, while we staid here, and then came our time for departure. As we rode down to Lake Ontario, on the bank of the river, and turned every moment to catch glimpses of the Falls, we were favored, when between two and three miles on our way, with a full view of the whole cataract, through an opening in the woods. We stopped and alighted, in order to enjoy the melancholy pleasure of contemplating it for the last time. It looked softer and gentler in the distance, and its sound came to the ear like a murmur. I had learned to regard it as a friend; and, as I stood, I bade it, in my heart, farewell.

Farewell, beautiful, holy creation of God!—Flow on, in the garments of glory which he has given thee, and fill other souls, as thou hast mine, with wonder and praise. Often will my spirit be with thee, waking, and in dreams. But soon I shall pass away, and thou wilt remain. Flow on, then, for others' eyes, when mine are closed, and for others' hearts, when mine is cold. Still call to the deeps of many generations. Still utter the instructions of the Creator to way-faring spirits, till thou hast fulfilled thy work, and they have all returned, like wearied travellers, to their home.

THE broad volume of nature never contradicts the volume of inspiration. The seven thunders of the Apocalypse may be heard in the roar of Niagara.

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THE PLANETARY WORLDS.

THE *number* of systems in the heavens which lie within the range of our telescopes, is reckoned to be at least a hundred millions (100,000,000.) In the regions of infinite space beyond the boundary of all these, it is not improbable that ten thousand times 100,000 millions of other systems are running their ample rounds. With each of these systems, it is probable that at least a hundred worlds are connected.* Every one of these worlds and systems, we have reason to believe, differs from another, in its size, splendor, and internal arrangements, in the peculiar beauties and sublimities with which it is adorned, and in the organization and capacities of the beings with which it is furnished. The immense multitude of rational beings and other existences with which creation is replenished, is an idea which completely overpowers the human faculties, and is beyond the power of our arithmetical notation to express. Even the multiplicity of objects in *one* world or system, is beyond our distinct conception. What very feeble and imperfect conceptions have we attained of the immensity of radiations of light incessantly emitted from the sun and falling upon our globe, and of the innumerable crossings and re-crossings of these rays from every object around, in order to produce vision to every beholder! of the incalculable myriads of invisible animalculæ which swim in the waters and fly in the air, and pervade every department of nature! of the particles of vapor which float in the atmosphere, and of the drops of water contained in the caverns of the ocean! of the many millions of individuals belonging to every species of vegetables, of which 50,000 different species have already been discovered, and of the number of trees, shrubs, flowers, and plants of every description, which have flourished since the creation! of the countless myriads of the lower animals, and of the human species, which have been brought into existence since the commencement of time,

* With the solar system to which we belong, there are connected more than a hundred globes of different sizes, if we take into account the planets both primary and secondary, and likewise the comets.

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and of those which are yet to appear in regular succession till time shall be no more! of the immense variety of movements, adjustments, and adaptations, connected with the structure of an animal body, of which fourteen thousands may be reckoned as belonging to the system of bones and muscles comprised in the human frame, besides a distinct variety of as numerous adaptations in each of the 60,000 different species of animals which are already known to exist! of the countless globules contained in the eyes of the numerous tribes of beetles, flies, butterflies, and other insects, of which 27,000 have been counted in a single eye! And, if the multiplicity of objects in one world overwhelms our powers of conception, and computation, how much more the number and variety of beings and operations connected with the economy of millions of worlds!

TOPOGRAPHICAL SKETCHES, NO. VI.

BERLIN.

BERLIN is the capital of the kingdom of Prussia, and the scene of many of the diplomatic negociations and intrigues of European politics. It stands upon the river Spree, which divides the city into two parts, and, though but an insignificant stream, is invaluable to the inhabit-

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ants both as a means of cleanliness and a vehicle of commerce. To the eastward this river communicates with the Oder by means of a canal, and thus brings down to Berlin the minerals, the corn, and the manufactures of Silesia; to the west it bears the exports of Berlin to the Havel, the Havel bears them into the Elbe, and on the Elbe they descend to Hamburgh.

The entrance to Berlin on the west is by the Brandenburgh Gate, the most simple and majestic portal in Europe. It is an imitation of the Propylæum of Athens. Six lofty fluted Doric pillars, on each side support an entablature without any pediment; a gateway passes between each couple of pillars. On the entablature stands the bronze figure of Victory, drawn in her chariot by four horses, and bearing the Prussian eagle in triumph. From the portal you enter, at once, the most splendid street in Germany. It runs due east and west from the Brandenburgh gate which closes the perspective at one extremity, while the royal palace terminates it at the other. This street is divided into five parallel walks by double rows of lime trees and horse-chesnuts, and from the predominance of the former is called *Unter* den *Linden*. Many of the buildings which line the sides of this beautiful street are ample and imposing though of a somewhat promiscuous character, some of them being the abodes of courtly and diplomatic pomp, some of them extensive hotels, and others the establishments of celebrated restaurateurs. This street is the scene of all the bustle of Berlin, but not the bustle of business; it is the bustle of idle persons amusing and enjoying themselves. During the greater part of the day, especially on Sunday, it is filled with crowds of well-dressed people streaming merrily along, or lounging on the benches beneath the shade of the lime trees. Now and then the king is seen in the alley attended, if attended at all, by a single servant, and enjoying with as much plain heartiness as the meanest of his subjects, the beauty and comforts of the scene. The idlers rise from their benches as he passes, the gentlemen take off their hats, and the ladies make their best courtsey. The king has a nod or a smile for every body and passes on. Except the Linden, the appearance of Berlin is regular and dull. Between the Brandenburgh gate and the pa-

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lace are crowded together nearly all the fine edifices in Berlin. The guard, the university, the arsenal, the opera house, the theatre, and the palace, are all in the neighborhood of each other. The palace has nothing to recommend it but its huge size and the splendor of its furniture. The arsenal, though it has neither porticoes nor pillars, is the finest building in Berlin; the extent and simplicity of its fronts are majestic, and its military trophies and emblematical groupes display a great deal of excellent workmanship. In the public architecture of Berlin there is a tiresome degree of uniformity, arising from the constant repetition of the same forms and combinations. The general style is an Ionic portico before a plain front. The ground floor, formed of rustic work, projects, and on this is raised the portico. This disagreeable uniformity is the more striking in Berlin, from the proximity of the buildings. Thus in one *Place* stand the theatre, two gorgeous churches and the university, all in the same style.

The university, though only founded in 1810, is already the most flourishing in Germany. Its establishment is owing to Professor Wolff, the celebrated philologist, who is himself its brightest ornament. Berlin contains about 200,000 inhabitants.

RUINS OF MOAB.

We obtained, says Buckingham, a distant view of Oom-el-Russas, about eight or ten miles off, to the

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southward of us. The only conspicuous object which presented itself to our view, at this distance, was a high tower, looking like a monumental column, standing alone. We continued our way towards it in nearly a straight line, over a gently rising ground, with an improving soil, and reached it about noon.

On entering the site of this ruined town, we came first to some smoothly hewn cisterns in the rock, with marks of a large quarry, from which abundance of stone had been taken away, for building. Beyond these, and on a higher level, we found a portion of a square building, resembling the remains of a small fort, the walls of which were pierced with long and narrow loop-holes for arrows or musketry. A few paces south of this, stood the tower which had shown itself so conspicuously at a distance. This tower was not more than ten feet square at its base, and from thirty to forty feet high; the masonry in it not being remarkable either for its strength or elegance. On the shaft of this square pillar, for so it might well be called, was a sort of square capital, cut off from the body of the tower by a shelving moulding raised at the corners like the covers of the Roman sarcophagi, scattered so abundantly over the country. At each corner of this square capital was a plain Doric column, small size, supporting a florid cornice, sculptured with an arabesque pattern, and curved outwards at the corners in the most fanciful manner.

On the north, the east, and the west sides of this tower, and about midway between its base and summit, a Greek cross was sculptured in relief, and contained within a circle: but on the south side this emblem was not to be found. In various parts parts of it were many marks like those on the wells and cisterns of El Themed; and as this tower is unquestionably of a date much posterior to the days of the Israelites sojourning in these parts, and of Greek or Roman work, in the decline of these empires, the marks are most probably those of the Arabs. The inquiry suggested would still be useful, however, inasmuch as if the characters on the Written Mountain were found generally resembling these, it might be concluded that they also were the work of Arabs, and not of the Jews, during their wandering in the Desert of Sin.

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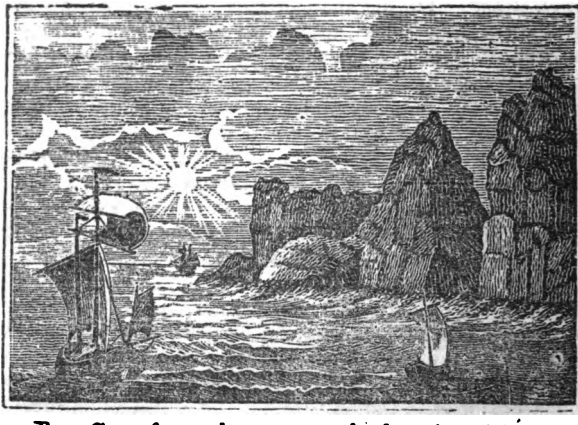
To the eastward of this tower, a few paces only, are remains of ruined buildings, and to the southward are seen foundations, with broken pottery, and other vestiges of former population, extending for more than half a mile to the first division of enclosed dwellings belonging to the town. This is about 200 yards square, the walls are low, but are constructed of large stones, and the interior of this space is filled with ruined buildings, the arch doorways of which are the only parts remaining perfect. These arches are all of the Roman shape; and I observed amongst the ruins, in several places, appearances of stone beams having been laid on the walls, so as to reach from side to side, and support entirely the roof of the dwelling.

THE NORTH CAPE.



This Cape forms the most northerly point of the continent of Europe, and may be regarded as one of the sublimest wonders of nature. It is situated within the arctic circle, in seventy-one degrees ten minutes north latitude. It has been accurately described by a late voyager, from whose account the following particulars are extracted.

In approaching the Cape, a little before midnight, its

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rocks at first appeared to be nearly of an equal height, until they terminated in a perpendicular peak; but, on a nearer view, those within were found to be much higher than those of the extreme peak, or point. Their general appearance was highly picturesque. The sea, breaking against this immovable rampart, which had withstood its fury from the remotest ages, bellowed, and formed a thick border of white froth. This spectacle, equally beautiful and terrific, was illuminated by the MIDNIGHT SUN; and the shade which covered the western side of the rocks rendered their aspect still more tremendous. The height of these rocks could not be ascertained; but here every thing was on so grand a scale, that a point of comparison could not be afforded by any ordinary known objects.

On landing, the party discovered a grotto, formed of rocks, the surface of which had been washed smooth by the waves, and having within a spring of fresh water. The only accessible spot in the vicinity was a hill, some hundred paces in circumference, surrounded by enormous crags.—From the summit of this hill, turning towards the sea, they perceived to the right a prodigious mountain, attached to the Cape, and rearing its sterile mass to the skies. To the left, a neck of land, covered with less elevated rocks, against which the surges dashed with violence, closed the bay, and admitted but a limited view of the ocean. To see as far as possible into the interior, our navigators climbed almost to the summit of the mountain, where a most singular landscape presented itself to the view. A lake in the foreground had an elevation of at least ninety feet above the level of the sea; and on the top of an adjacent, but less lofty mountain, was another lake. The view was terminated by peaked rocks, chequered by patches of snow.

At midnight the sun still remained several degrees above the horizon, and continued to ascend higher and higher till noon, when having again descended, it passed the north, without dipping below the horizon. This phenomenon, which is as extraordinary to the inhabitants of the torrid and temperate zones, as snow is to the inhabitants of the torrid zone, could not be viewed without a particular interest. Two months of continued day-light, during which space the sun never sets, seem

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to place the traveller in a new state of existence; while the effect on the inhabitants of these regions is singular. During the time the sun is perpetually above the horizon, they rise at ten in the morning, dine at five or six in the evening, and go to bed at one. But, during the winter season, when, from the beginning of December until the end of January, the sun never rises, they sleep above half of the twenty-four hours, and employ the other half in sitting over the fire, all business being at an end, and a constant darkness prevailing.

The cause of this phenomenon, as it affects the northern and southern regions of the earth, may be readily understood. The sun always illumines half the earth at once, and shines on every side ninety degrees from the place where he is vertical. When he is vertical over the equator, or equidistant from both poles, he shines as far as each pole; and this happens in spring and autumn. But, as he declines to the north in summer, he shines beyond the north pole, and all the countries near that pole turn round in perpetual sunshine: he, at the same time, leaves the south pole an equal number of degrees, and those parts turn round in darkness. The effect is contrary at each pole in our winter, the sun then declining south of the equator.

About three miles from the North Cape lies Maso, the northermost port of Norwegian Lapland. It is formed of a very fine bay, in which ships may winter with the greatest security.

ENCOURAGEMENT TO PERSONS OF MATURE AGE TO CULTIVATE THE MIND.

Instances have occurred of individuals, in whom the power of imagination has at an advanced period of life been found susceptible of culture to a wonderful degree. In such men what an accession is gained to their most refined pleasures! What enchantments are added to their most ordinary perceptions! The mind awakening, as if from a trance to a new existence, becomes habituated to the most interesting aspects of life and of nature; the intellectual eye is "purged of its film;" and things, the most familiar and unnoticed, disclose charms

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invisible before. The same objects, which were lately beheld with indifference, occupy now all the powers and capacities of the soul; the contrast between the present and the past serving only to enhance and to endear so unlooked for an acquisition. What Gray has so finely said of the pleasures of vicissitude, conveys but a faint image of what is experienced by the man who, after having lost in vulgar occupations and vulgar amusements his earliest and most precious years, is thus introduced at last, to a new heaven and a new earth:

"The meanest floweret of the vale,
The simplest note that swells the gale,
The common sun, the air, the skies,
To him are opening Paradise."

DUGALD STEWART.

POPULAR LITERATURE, NO. I.

STEELE.

THE TATTLER.

THAT illustrious philanthropist, Chancellor Brougham, in one of his public addresses, uses this emphatic expression, "the schoolmaster is abroad," and attributes to the unprecedented diffusion of information among the people, the spirit of liberal inquiry which is making such havoc among the "time hallowed" prejudices of the old world. We have thought that we might profitably employ a page or two in the investigation of this subject, and in tracing the means which have been adopted by liberal minded men to enlighten their fellow creatures upon subjects most nearly connected with their interests.—It is obvious, that whatever be the other facilities of acquiring knowledge, books are indispensa-

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ble; and that these, to be generally useful, must be adapted to the intelligence, and brought within the means of ordinary readers. The earliest attempt to accomplish so desirable an end was made by the conductors of the "Tattler," a periodical paper, the first number of which appeared on the 12th of April, 1709. This publication is the first on record, the professed object of which was to afford instruction and entertainment by means of short essays appearing at stated times and sold at a cheap rate. It is true, that papers on a somewhat similar plan had been published in Italy by Casa in his "Book of Manners," and Castiglioni in his "Courtier;" as well as in France by La Bruyere in his "Manners of the Age;" but the Tattler was the first work of the kind of which the subjects were literature, morality, and familiar life, and the object "to bring philosophy out of closets and libraries, schools and colleges, to dwell in clubs and assemblies, at tea tables, and in coffee houses." The Tattler was sold at a penny a number, and notwithstanding its modest pretensions, some of the ablest writers in England did not think it beneath them to instruct their countrymen through the medium of its pages. Among the most eminent of its contributors we find STLELE with his wit, ingenuity and good sense; ADDISON with his quiet humor, pure morality, and unexceptionable taste, and SWFT with his caustic satire and severe, chaste style, "a well of English undefiled."

Steele was the editor and carried on the work under the assumed name of "ISAAC BICKERSTAFF."

The writers of the Tattler did not devote themselves to scientific subjects, for physical science was yet in its infancy, and was to them almost as much a sealed book as to their readers: but they aimed at reforming the vicious, and instructing the ignorant; at shaming the idle into industry, and ridiculing the vulgar into refinement. They wrote at a time when letters was the profession of a few, and knowledge confined to a class; when the amusements of the people were of the most brutal character, and those from whom better things might have been expected, abused their opportunities and wasted their leisure in frivolous pursuits or vicious indulgences. Ignorance was no disgrace, nor was profligacy considered a blot on the escutcheon of a gentleman. It was at

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such a time that the Tattler undertook to allure the indolent to application, and to shame the vicious to decency. The attempt was a bold one, but it was successful. GAY, who lived at the same time with Steele, bears this honorable testimony to his merits: "To give you my own thoughts of this gentleman's writings, I shall, in the first place, observe, that there is this noble difference between him and all the rest of our polite and gallant authors: the latter have endeavored to please the age by falling in with them, and encouraging them in their fashionable vices and false notions of things. It would have been a jest some time since, for a man to have asserted that any thing witty could be said in praise of a married state; or that devotion and virtue were any way necessary to the character of a fine gentleman. Bickerstaff ventured to tell the town, that they were a parcel of fops, fools and vain coquettes; but in such a manner as even pleased them, and made them more than half inclined to believe that he spoke truth. Instead of complying with the false sentiments and vicious tastes of the age, either immorality, criticism, or good breeding; he has boldly assured them that they were altogether in the wrong, and commanded them with an authority which perfectly well became him, to surrender themselves to his arguments for virtue and good sense."

The effect produced by the Tattler was unparalleled in the annals of literature. The follies he ridiculed were immediately banished; vice was restrained, and virtue and religion promoted. Twenty thousand papers were often sold in a day, and to many the Tattler became as necessary as their daily food. It appeared on every tea table, and in every assembly; and even the merchant, on his way to Change, carried it in his pocket.

When it was discontinued, and the last paper was issued, full of compliments to the town for their kindness, and bearing the signature of RICHARD STEELE, instead of the accustomed one of ISAAC BICKERSTAFF, its disappearance was regretted as a public calamity. Every one felt the want of the amusements it had furnished, and the keepers of the coffee houses declared that 'Squire Bickerstaff's lucubrations had brought them more customers than all their other sources of attraction put together.

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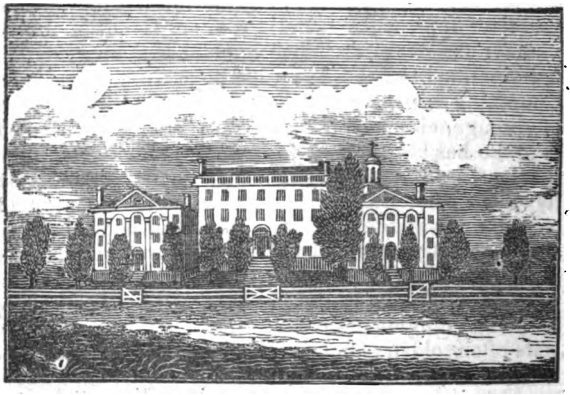
The Tattler was in fact a newspaper, as each number contained a summary of foreign intelligance; and the only difference between it and the other papers of the day consisted in the original essays it contained on morals, literature, and criticism. These essays are the only parts which are now preserved, and they may still be read with general satisfaction.

Each number of the Tattler consisted of but two pages, of which nearly one fourth was taken up by advertisements, It reached 271 numbers, and was discontinued the 2d January, 1710.

New York, November, 1832.

LITERARY INSTITUTIONS.—NO. II.



CAZENOVIA SEMINARY.

In the last number we gave a brief sketch of the College of New Jersey, one of our most renowned and venerable seminaries of learning; one which has established strong claims to attention by the services it has rendered to the cause of literature, and the great men it has presented to our common country. We now, at the request of an esteemed friend, present an account of another literary institution, of more recent origin and modest pretensions. We mean the seminary of Cazenovia, in the State of New York, established by the Oneida Conference of the Methodist Episcopal Church.

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This establishment does not aspire to the character of an university, and hardly to that of a college; but it is not on that account, less worthy of notice. While the professors in our colleges are giving the final polish preparatory to the introduction of young men to public life, the conductors of our seminaries are laying the foundation of character and habits on which their public usefulness must mainly depend. The task of the former may be more imposing, but it may be questioned whose is the more important—because the more responsible. Entertaining these views, we intend in future notices of literary institutions, not to confine ourselves to those with the proudest titles, but also to speak of such of our higher schools as from liberal endowment, or the talents of their professors, appear likely to exert an extensive influence on the character of the rising generation. Such an one we consider the seminary at Cazenovia.

The governors of this institution displayed admirable taste and foresight in the selection of Cazenovia as the place of its location. It is a pleasant healthy village, containing from 1500 to 2000 inhabitants, and, being situated on the great western turnpike, is rapidly increasing in population, and rising to greater importance. The small lake on whose border it stands, adds much to its pleasantness and beauty, and gives a character of the picturesque to the surrounding scenery. The location of the village is peculiarly happy as regards the health, the comforts, and, we may add, the morals of its inhabitants; it is blessed with good water—so indispensable to health—the air is remarkably pure and free from the miasmatic exhalations, with their accompanying fevers, that pervade so large a portion of our western country:—the surrounding region is open and fertile, displaying on every hand the aspect of industry and plenty, and the people are distinguished for their enterprize, intelligence and morality. The haunts of dissipation and the incentives to vice, so common in cities and large towns, are here unknown, and consequently the morals of the young and inexperienced are not exposed to contamination.

The seminary was opened in 1824, and has steadily advanced in character and usefulness since that time.

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It is now under the care of the Rev. William C. Larrabee, of Bowdoin College, and has a very respectable number of students. The endowment is liberal, and its funds are continually increasing by donations and subscriptions. The buildings are spacious, containing ample accommodations for the students, besides a laboratory, rooms for chemical and philosophical apparatus, a library, a reading room, and a large boarding hall. These buildings are soon to be extended. The course of study though not as complete as that pursued in colleges, embraces all that is necessary to enable students to enter their higher classes. Its English course is particularly full and satisfactory, including the physical sciences and the higher mathematics. Though but a few years in existence, the Cazenovia Seminary has already exerted a marked influence on the literary character of the part of the state in which it is situated; and has even attracted students from remote regions; from Pennsylvania, Ohio, the New England States, and Canada. We are assured that it has sent forth many excellent practical scholars, and supplied some of our colleges and universities with a number of promising members.

NATURAL HISTORY.

GALL-INSECT.

The history of the gall-insects is curious, chiefly from the power they possess of diverting the laws of vegetation from their ordinary into an extraordinary track. These insects are not all of one kind; but, though differing in many respects, they have this quality in common, that they deposit an egg under the outward covering of a plant, whence a little mansion springs up which provides its inmate both with shelter and food. Judging from the great number of plants attacked by them, it would appear that our insects are destined to fill a very important department in the economy of nature. These excrescences are found in every part of a plant; there is scarcely a portion of the oak, for instance, whether it be root, branch, stalk leaf, or bud, which is not capable of furnishing the gall-insects with a habitation.

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Some of the galls are tenanted by only one embryo, others contain many in their larvo state, so that these insect-houses consist either of one or many chambers; they vary in size from the minuteness of a pin's head to the bulk of a walnut; they sometimes resemble fruit, both in shape and color; the gall of the oak, for example, is sometimes shaped like an apple, sometimes like a bunch of currants, and sometimes like an artichoke: but it were endless to enumerate the strange and beautiful diversities which are produced by a tiny insect in a space of time varying from a few hours to a few weeks.

The older botanists mistook the trees in which these vegetable excrescences were produced for distinct species. Thus, Gerard describes a willow which bore something like roses; he talks of it, as not only "making a gallant show, and being set up in houses for the decking of the same," but also as "yielding a most cooling aire in the heat of summer."

"This willow, however," observes Kirby, "is nothing more than one of the common species, whose twigs in consequence of the deposition of the eggs of a cynips in their summit, there shoot out into numerous leaves totally differing in shape from the other leaves of the tree, and arranged not much unlike the flower of a rose, adhering to the stem even after the others fall off."

In consistence, these excrescences have nothing in common with the plant to which they are attached. On the oak, some are found literally as hard as iron, so as to turn the edge of a knife, while others are as juicy and pulpy as fruit. It is not the tree but the insect which regulates this; for it is certain that, on the very same leaf, one species of gall-fly will invariably form

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a woody and hard gall-nut, while another as invariably produces a spongy and soft one—although both of these are formed from materials of the same texture. Persons who formerly saw insects emerging from little excrescences having no visible inlet, were induced to believe that they had either been sucked up by the roots with the juices, or generated by putrefaction.

Attentive observation, and the use of a lens of sufficient power, will explain the manner in which the gall-nut rises. The little fly may be seen settling on the part to which its instinct invariably leads it; and introducing a sort of sting, its ovipositor, under the epidermis or skin of the plant: it then moves it about as if to enlarge the orifice, and deposites the egg. These eggs, when examined first in the body of the fly, and afterward in the nut, are found to differ so much in size, that Raumer supposes them to grow after they have been laid. If this be the fact, it is singular, as in that case the egg will not resemble so much that of oviparous animals as that of viviparious.

The plant being alive, we can easily imagine that, if any part of it be wounded, the sap would flow from the orifice, and produce a knob, which would grow and harden into an irregular mass.

The gall-fly, however, has the art of altering the organization of the part: an egg, together with perhaps a most minute drop of fluid, is introduced into a plant; and a part which, under ordinary circumstances, would have expanded into a leaf or stalk, is seen to burst out under the form of a fruit or flower, as evidently organized, as if it had been transferred from the plant which it resembles, to that to which it has no natural affinity.

Why one insect should produce invariably one species of gall, and another insect a different species—why these should resemble the regular forms of parts of other plants, are mysteries extremely difficult, if not utterly incapable, of solution. When the egg is deposited in the young shoot, by a particular kind of gall-fly, instead of pushing forth a sprout, the irritation brings out an abundance of leaves, which gradually assume the figure of an artichoke.

The first general effect produced by the insertion of

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the egg is, therefore, to augment the vegetative powers of the part, and the next to alter their action. The hairy gall of the wild rose, formerly employed in medicine, under the name of Bedegaur, has a mossy appearance. Here the liquor of the gall-fly seems to have caused a disjunction of those fibres which in their ordinary state, would have united and formed a leaf. The difference observable in the consistence of these various galls may possibly arise from the different power of absorbing juices possessed by the different insects inhabiting them; though it is just as possible, in this guess-work, to suppose that the irritation should cause a greater quantity of juices to flow towards the punctured part.

The gall-insects remain five or six months in the larva state, before changing to nymphs; some undergo all their metamorphoses within the gall-nut, and piercing their prison, come forth as perfect insects: others quit it and bury themselves in the earth, until they arrive at maturity; soon after which the female becomes impregnated and lays her eggs. Carefully concealed in the manner just described, they escape most of their natural enemies; but frequently some of the ichneumon tribe contrive to introduce their eggs into the same habitation, and the larva as it grows up feeds on the young of the gall-fly.

This shows that even insects, which nature seems to have gifted with the most remarkable foresight, cannot provide against all the hazards to which their young are exposed. What could an anxious mother do more, than to conceal her offspring in so solid and secret a habitation, as that which envelopes the young gall-fly? But insects, as small or smaller than those into which the larvæ are transformed, know how to pierce the sides of the cells and to deposite within them an egg, which shall

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produce a carnivorous worm, for whom the rightful tenant of the mansion serves as food. When some of these galls are opened, two worms of different sizes will frequently be found, the least sucking the biggest, while the latter sucks the gall-nut. When the ichneumon, for the small worm generally turns into that species of fly, comes out, it is often found to be much bigger than the creature it lived on, and here a difficulty presents itself which requires to be explained. How does it happen that the ichneumon worm should be so much bigger than the gall-insect, which is the only substance on which it feeds? Where does it obtain the additional food required to produce this additional bulk? Not from the gall-nut, for the ichneumon worm does not feed on a vegetable; and as there is no living thing, save the larva of the gall-fly, enclosed with it in the cell, it must in some way or other obtain it from that. The truth is, that Nature has taught the young of the ichneumon not to kill the larva of the gall-fly outright; it wounds only certain parts which are not vital, and from these it extracts its nourishment. The gall-worm, therefore, goes on sucking the vegetable juice, and elaborating it into animal matter, and as fast as that process is completed, the ichneumon worm abstracts and appropriates it, and so well-timed are the operations of nature, that the moment the ichneumon worm has reached its perfect state, and requires no farther supply of food, the gall-insect, which previously furnished it with this supply, becomes exhausted, and perishes.

FINGAL'S CAVE.

The following sketch is extracted from a "Journey to the Hebrides," a cluster of small islands on the west coast of Scotland. The author, speaking of this stupendous work of nature, observes:—"The grandeur and majestic simplicity of this vast hall,* the obscuri-

* Length of the Cave from the rock without - 371 ft.
Breadth at the mouth - - - - 53
Breadth at the farther end - - - 20
Height of the arch at the mouth - - 117
Height at the farther end - - 70

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FINGAL'S CAVE.

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ty which reigns there, and which increases still more the solemnity of the basaltic pillars, the rolling waves striking against the walls, and which in breaking against the bottom of the cavern produce a noise at times similar to the rolling of distant thunder, the echoes resounding from the vault repeating and prolonging all the sounds with a kind of harmony;—all these features united produce in the mind a sensation which invited us to meditation and to religious awe.

"Absorbed by the imposing view which we enjoyed, we could hardly cease contemplating the black walls of the cavern, the vast ocean, the mosaic pavement, and the ocean, which is seen prolonging at a distance across the gothic arch which forms the entrance of the vault.

"The perfect regularity of each basaltic pillar of which these rocks are composed, may, it is true, recall in the first instance the idea of achitecture; but this simile must not be carried too far, as it cannot be supported by profound examination.

"In addition to the pleasure I experienced from the beauty of the cave, were impressions which added still more to its charms; among these are the sentiments excited by its situation in the midst of a tempestuous sea, and sheltered from the destroying hand of man in a small isle, for a long period unknown, and continually beaten by floods and tempests; the idea of the possibility that subterraneous fires might formerly have contributed to its formation; the distant view of the isle of Iona: but, above all, the idea recalled to the mind by the name of Fingal! Fingal, Ossian, and the bards assembled perhaps in former times under these vaults; the music of their harps accompanied the sound of their voices, and mixing with the hoarse winds and waves, it has perhaps more than once re-echoed through these cavities. Here they sung their wars and their victories; here they commemorated the deeds of those heroes whose shades their imagination depicted to them by the pale light of the moon at the entrance of the solitary cavern!'

Oh long shalt thou mourn, in thy echo's deep groan,
Thy hall now all desolate, silent, and lone;
The honors thou boasted, now sunk to decay,
And the hero thou sheltered in time's early day

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Thy walls then re-echoed the deeds he had done;
And the laurels thy hero in battle had won.
But now thou'rt deserted, thy pillars are bare,
Which then were festooned with the trophies of war.
No longer thy Fingal shall seek thy retreat;
No longer his deeds, shall thy echoes repeat.
But dreary and lone, save the traveller's lay,
No sound shall be heard, but the dash of the spray.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

A MOONLIGHT SCENE.

"The beauty of heaven, the glory of the stars."
SON OF SIRACH.

There are certain great and manificent objects in the creation, the contemplation of which has a tendency to produce a kind of internal elevation and expansion; to raise the mind above its ordinary state; and to excite a degree of wonder and astonishment, which it cannot often express. The emotion is certainly delightful; but it is entirely of the serious kind; and it is attended most commonly, by a degree of solemnity and awe, very different from the sprightliest sensations inspired by scenes that glow, as it were, with excessive radiance and overpowering beauty.

The scenes which are most calculated to inspire "sublimities of thought," are not so much the smiling landscape, the variegated fields, and the dazzling skies, as the venerable woods, the high impending cliff, or the headlong torrent. Hence, too, nocturnal views are commonly the most sublime. The firmament filled with stars, that are scattered through infinite space, with such magnificent profusion, impresses the imagination with ideas far more grand and awful, than when we view it enlightened by all the splendor of the sun. Of this sentiment is our favorite poet of the night.

"And see, Day's amiable sister sends
Her invitation, in the softest rays
Of mitigating lustre; courts thy sight
Which suffers from her tyrant brother's blaze.
Night grants thee the full freedom of the skies,
Nor rudely reprimands thy lifted eye—
Night opes the noblest scenes and sheds an awe

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Which gives those venerable scenes full weight,
And deep reception in the intendered heart.

The objects moreover, which the eye contemplates by day, do not affect the pensive mind with a pleasure so serene as the milder glories of a moonlight evening. We then behold a new picture of things, which is more delicately shaded, and disposed into softer lights, than that which the radiant ruler of the day had before displayed. Each tumultuous care and important agitation had vanished with "garish day." The discordant passions are soothed into serenity and peace, by the stillness of all around. In this happy moment we imbibe, as it were, the universal repose of Nature; for there is not an object but seems to be at rest; and the musing wanderer can scarce forbear to exclaim with Lorenzo;

How sweet the moon-light sleeps upon this bank!
Here will we sit, and let the sounds of music
Creep in our ears; soft stillness and the night
Become the touches of sweet harmony.
Sit, Jessica; look how the floor of heaven
Is thick inlaid with patterns of bright gold;
There's not the smallest orb, which thou behold'st,
But in his motion, like an angel, sings,
Still quiring to the young-eyed cherubim,
Such harmony is in immortal souls.

The greatest poets in every age, have vied with each other in the description of a moonlight evening. But, among the treasures of ancient and modern poetry, I know not one, superior for pleasing imagery, and the variety of numbers, than that of Milton:

"Now came still Evening on, and Twilight gray
Had in her sober livery all things clad;
Silence accompanied; for beast and bird,
They to their grassy couch, these to their nests,
Were sunk, all but the wakeful nightingale:
She all night long her amorous descant sung;
Silence was pleased: now glowed the firmament
With living sapphires; Hesperus, that led
The starry host, rode brightest, till the Moon,
Rising in clouded majesty, at length,
Apparent queen, unveiled her peerless light
And o'er the dark her silver mantle threw.

I can recollect only one description that is worthy to

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be mentioned after this. It is of a fine moonlight night, by way of simile, in the eighth book of the Illiad. It is esteemed, indeed, a master-piece of nocturnal painting, but Milton's description, it must be observed, leaves off where that of Homer begins.

> "As when the Moon, refulgent lamp of night
> O'er heaven's clear azure spreads her sacred light,
> When not a breath disturbs the deep serene,
> And not a cloud o'ercasts the solemn scene,
> Around her throne the vivid planets roll,
> And stars unnumbered gild the glowing pole,
> O'er the dark trees a yellower verdure shed,
> And tip with silver every mountain's head;
> Then shine the vales, the rocks in prospect rise,
> A flood of glory bursts from all the skies.
> The conscious swains, rejoicing in the sight,
> Eye the blue vault, and bless the useful light,
> POPE.

Nor have the sacred writers been unobservant of this bright "sovereign of the shades." The patriarch Job observes, that he could behold "the moon walking in brightness," without being seduced to the admiration of aught but the great Creator of the universe. And the Psalmist, from a view of the nocturnal heavens, expresses himself in the most reverential language of astonishment and humility. "When I consider the heavens, the work of thy fingers; the moon and the stars, which thou hast ordained; what is man that thou art mindful of him, and the son of man that thou visitest him?"—Nor must we omit to mention again the wise son of Sirach, although his writings are not admitted into the sacred canon. "The Lord made the moon also to serve in her season, for a declaration of times, and a sign of the world. For the moon is the sign of feasts, a light decreaseth in her perfection. The month is called after her name, increasing wonderfully in her changing, being the instrument of the armies above, shining in the firmament of heaven, the glory of the stars, an ornament giving light to the highest places of the Lord. At the command of the Holy One they will stand in their order, and never faint in their watches."—This is paraphrased with great elegance and spirit by Mr. Broome, the honored and not unequal co-adjutor of Pope, in his poetical version of the Odyssey:

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"By thy command the Moon, as daylight fades,
Lifts her broad circle in the deep'ning shades;
Arrayed in glory, and enthroned in light,
She breaks the solemn terrors of the night;
Sweetly inconstant in her varying flame,
She changes still, another, yet the same!
Now in decrease, by slow degrees, she shrouds
Her fading lustre in a veil of clouds:
Now of increase, her gathering beams display
A blaze of light, and give a paler day;
Ten thousand stars adorn her glittering train,
Falls when she falls, and rise with her again;
And o'er the deserts of the sky unfold
Their burning spangles of sideral gold;
Through the wide heavens she moves serenely bright,
Queen of the gay attendants of the night;
Orb above orb in sweet confusion lies,
And with a bright disorder paints the skies.

But this noble subject is not monopolized by the poets; it affords ample room for inquiry to the Contemplative Philosopher. Of all the celestial orbs, the moon, next to the sun, has the most beneficial influence upon our globe.—And if her beautiful appearance in the skies, with such constant variations, were insufficient to attract our attention, she would at least inspire us with the warmest sentiments of gratitude and adoration toward the beneficent Being, who has formed and stationed her in such a manner, as to be productive of the most signal advantages to the earth.

(*To be Concluded.*)

POETRY.

Written for the Monthly Repository and Library of Useful Knowledge.

LAMENT OF POLAND.

You, who sigh for Poland's wo,
You, who weep her overthrow,
In her vales our breath we drew,
From her mountains swept the dew,
From her rocks and waters free,
Caught the breath of liberty,
Sons, from her embraces torn,
Our lost mother's doom we mourn,
—From our cottage homes we sprang,
When her cry of danger rang,

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From our babes we turned away,
Poland call'd us,—could we stay?
—We, on Praga's fatal field
Saw her ancient glory yield,
Polish blood fell down like rain,
Russia triumph'd--*'twas in vain.*
——— Wanderers from our land of birth,
Pilgrims on this stranger earth,
Might our friends, our children dear,
Find a peaceful refuge here,
Might they 'neath your glorious sky
Taste of freedom ere they die,
Breathe for you the patriot prayer,
—This would save us from despair.

Hartford, Nov. 1832. L. H. S.

THE GRAVE OF THE YEAR.

Be ye hush'd every toil!--and each turbulent motion,
That encircles the heart in its treacherous snares;
And the hour that invites to the calm of devotion
Undisturb'd by regret—unincumber'd with cares.

How cheerless the late blooming face of creation!
Weary Time seems to rest in his rapid career;
And pausing awhile midst his own desolation,
Looks exultingly back—on the grave of the year.

Hark! the blast whistles loud—and the shadows are closing,
That inwrap his broad path in the mantle of night;
While pleasure's gay sons are securely reposing,
Undismay'd at the wrecks that have number'd his flight.

From yon temple where Fashion's bright torches are lighted,
Her vo'tries in throngs, crown'd with garlands appear;
And (as yet their warm hopes by no spectres affrighted)
Assemble to dance—round the grave of the year.

Oh! I hate the stale banquet the triflers have tasted
When I think on the ills of life's comfortless day;
How the flowers of my childhood their verdure have wasted,
And the friends of my youth have been stolen away.

They know not how vain is the warmest endeavor,
To woo the kind moments, so slighted when near;
When the hours that Oblivion has cancell'd forever,
Her hand has entomb'd in the grave of the year.

Since the last solemn reign of this day of reflection,
What crowds have resign'd life's ephemeral breath!
How many have shed their last tear of dejection,
And clos'd the dim eye in the darkness of death!

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How many have sudden their pilgrimage ended,
Beneath the sad pall that now covers their bier;
Or, to death's lonesome valley have gently descended,
And found their last beds—with the grave of the year.

'Tis the year that so late, its new promise disclosing
Rose bright on the happy—the careless and gay—
Who now on their pillows of dust are reposing,
Where the sod presses cold on their bosome of clay

Then talk not of bliss—while her smile is expiring!
Disappointment still drowns it in misery's tear,
Reflect—and be wise; for the dawn is retiring,
And to-morrow will dawn—on the grave of a year.

Ah! trust not the gleam of life's perishing taper,
So faintly that shines o'er the wanderer's head;
'Twill expire—when no sun may dispell the dark vapor,
No dawn of the morning revisit thy bed.

As breaks the white foam on the boisterous billow,
So the visions of pleasure and hope disappear;
Like night winds that moan through the boughs of the willow,
Or those shades that now meet—round the grave of the year.

Yet awhile and around us no seasons will flourish,
But Silence for each her dark mansion prepare;
Where beauty no longer her roses shall nourish,
Nor the lilly o'erspread the wan cheek of despair!

But the eye shall with lustre unfading be brighten'd,
When it wakes to true bliss in yon orient sphere:
By sun beams of splendor immortal enlighten'd
Never more to go down—on the grave of the year!

STANZAS.

Where's the man who seeks for *fame?*
Haste!—the laurel give him—
Unfold the scroll and write his name,
'Tis all the grave will give him!
Where is he that toils for *gold?*
Give!—let nought alloy it—
When a few brief days are told,
No more can he enjoy it!

Where's the bosom swells with *pride?*
Spare! I would not wound it—
For death shall twine at even-tide
His mean, scant garment round it!

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Where's the heart on *pleasure* bent?
Pour---a double measure---
Health and life's to-morrow spent---
Gone will be the treasure!

Where's the soul that looks *above*
Pleasure, gold and glory---
Such as earthly passions move--
Such as live in story?
Take each cup of joy away,
To others filled and given---
Oh, what are all these baubles---say---
To him whose home is---HEAVEN!

MAN.

THE human mind—that lofty thing!
The palace and the throne
Where awful reason sits as king,
And breathes his judgment tone—
O! who, with fragile step, shall trace
The borders of that haunted place,
Nor, in his weakness, own
That mystery and marvel bind
That lofty thing, the human mind!

Seek not her thousand thoughts to tell;
There essence who may know?
Ask not her fancies where they dwell
Her visions how they glow.
All soft and beautiful they come;
They dream of rest and call it home;
Ah! mark not where they go!
Enough that, while their light they pour,
We love the life we loathed before.

The human heart—that restless thing!
The tempter, and the tried;
The haughty yet the suffering;
The child of pain and pride;
The buoyant, and the desolate;
The home of love, the lair of hate;
Self-stung, self-deified!—
Yet do we bless thee as thou art,
Thou restless thing—the human heart!

And wherefore bless thee?—O there lies
A spell and pow'r in thee,
And in the torment of thy sighs
Disguised hope we see.
Yet though the golden fruit be gone,
Which once in its own lusture shone
On Passion's fragrant tree,

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Its shade is still divinely sweet,
And facinates the linperin feet.

The human soul—that holy thing!
The silently sublime;
The angel sleeping on the wing,
Worn with the scoffs of time:
The beautiful, the veil'd, the bound;
A prince enslaved; a victim crown'd;
The stricken in its prime!—
In tears—in tears to earth it stole—
That holy thing—the human soul!

Lo! shrined in her sacredness,
And breathing sainted air,
She calls on purity to bless
The presence-hall of prayer:
The dream is curtain'd in the shroud;
The rest is pillow'd on the cloud;
Her hope, her joy, are there;
And while she treads the mortal sod,
Her glorious eye is fix'd on God.

And this is Man!—Oh! ask of him—
The gifted, and forgiven—
When o'er the landscape, drear and dim,
The wreck of storms is driven,
If pride or passion, in their power,
Can chain the tide, or charm the hour,
Or stand in place of heaven;
He bends the brow, he bows the knee—
"Creator—Father—none but thee!"

THE RAINBOW.

Look upon the rainbow, and praise him that made it: very beautiful it is in the brightness thereof; and the hands of the Most High have bended it.—*Ecclesiasticus, chap.* 43.

He hath lit up the sky with His thousand rays,
And spread forth His arch mid the sun's bright blaze:
He hath spanned the waves with His glorious bow,
And dyed with its colours the ships below.

He hath look'd on the clouds, and they've floated away:
He hath gilded the rocks, and gemm'd them with spray:
He hath breath'd on the waters, and bid them be still:
He hath hush'd the broad waves with the word of His will.

He hath open'd the heaven's, He hath sent forth his showers,
To gladden the field and the spring-starting flowers:
And now He hath gather'd the tears of the sky,
And spread them abroad, like smiles from on high.—H. T**r.

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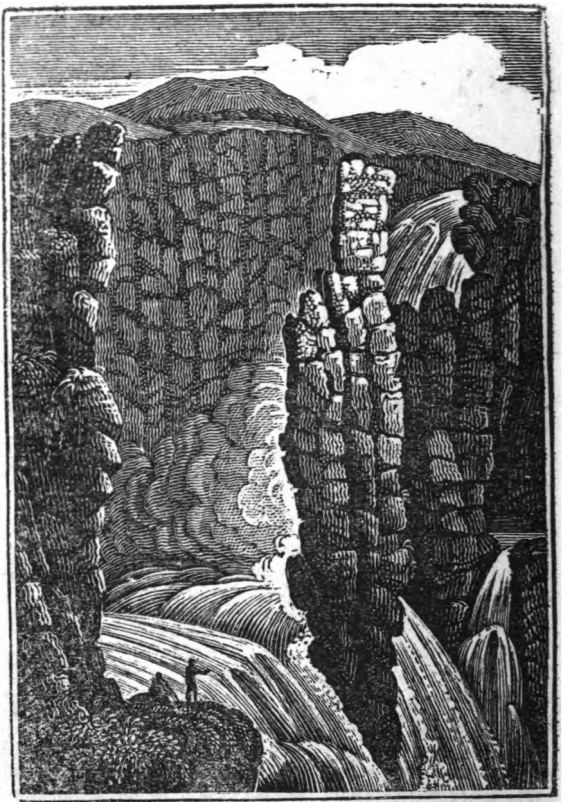

THE FALLS OF WILBERFORCE.

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THE

MONTHLY REPOSITORY,

AND LIBRARY OF

Entertaining Knowledge.

VOL. III. DECEMBER, 1832. No. 7.

THE FALLS OF WILBERFORCE,

IN THE ARCTIC REGIONS.

THE Falls of Wilberforce, one of the most romantic natural scenes that the Arctic regions present, was discovered during the late voyage of Captain Franklin to the shores of the Polar Sea. When the loss of his guides, the want of provisions, and the severity of the season, compelled Captain Franklin to relinquish the survey of the coast, he determined on returning by way of the Arctic Sound, where he had found the animals more numerous than at any other place, and entering Hood's river, to advance up that stream, as far as it was navigable, and then to construct small canoes out of the materials of the large ones, which could not be carried in crossing the barren grounds to Fort Enterprise.

Hood's river rises in Esquimaux Land and runs into the Arctic Sound. It is from one hundred to two hundred yards wide, and bounded by steep banks of clay. The shoals and rapids in the river are so frequent, that the party could make but little progress. Captain Franklin, describing the difficulties they had to encounter in ascending this river, in his journal of the 26th August, 1821, says: "We walked along the banks the whole day, and the crews labored hard in carrying the canoes, thus lightened, over the shoals, and dragging them up the rapids, yet our journey, in a direct line, was only about seven miles. In the evening we encamped at the lower end of a narrow chasm, through which the river flows for upwards of a mile. The walls of this chasm are upwards of two hundred feet high, quite perpendi-

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cular, and in some places only a few yards apart. The river precipitates itself into it over a rock forming two magnificent and picturesque falls close to each other. The upper fall is about sixty feet high, and the lower one at least one hundred, but perhaps considerably more, for the narrowness of the chasm into which it fell prevented us from seeing its bottom, and we could merely discern the top of the spray far beneath our feet. The lower fall is divided into two by an insulated column of rock which rises about forty feet above it. The whole descent of the river at this place probably exceeds two hundred and fifty feet. The rock is very fine felspathose sandstone. It has a smooth surface and a light red color. I have named these magnificent cascades "Wilberforce Falls," as a tribute of my respect for that distinguished philanthropist and christian. Messrs. Back and Hood took beautiful sketches of this majestic scene, which are combined in the annexed plate."

It is from the plate, to which Captain Franklin thus refers in his valuable Narrative, that our present correct and spirited view of the Falls of Wilberforce is engraved.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

A MOONLIGHT SCENE.

(*Concluded from page* 212.)

By the naked eye we can discover many of the most remarkable phenomena that distinguish the Moon from the innumerable orbs around her. We find her to be only a secondary planet, or attendant upon the Earth, revolving round it, from change to change, in twenty-nine days, twelve hours, and forty-four minutes, and accompanying its circuit round the Sun in the space of our year. Her diameter is 2180 miles, and her distance from the centre of the earth 240,000. She goes round her orbit in twenty-seven days, seven hours, and forty-three minutes, moving at the rate of 2290 miles every hour; and she turns round her axis exactly in the same time that she revolves round the Earth, which is the reason of her keeping always the same side towards us,

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and that her day and night, taken together, is as long as our lunar month.

The Moon, like the Earth, is an orbicular and opaque body, which shines only by reflecting the Sun's light. While that half of her, therefore, which is toward the Sun, is illuminated, the other half is dark and invisible. Hence, she disappears when she comes between the Earth and the Sun; because her dark side is then towards us. When she has gone somewhat forward, we see a little of her enlightened side, which still increases to our view, as she advances forward, until she comes to be opposite the Sun, where her entire enlightened side is toward the Earth, and she appears with a full illuminated orb, which we call the Full Moon; her dark side being then turned away from the Earth. From the full she decreases gradually as she proceeds through the other half of her course; showing us less and less of her bright side every day, till her next change or conjunction with the Sun, and then she disappears as before. These different appearances having been observed by Endymion, an ancient Grecian, who watched her motions, it gave rise to the fable of Diana falling in love with him.

These different appearances of the Moon, which we call her Phases, are sufficient to demonstrate, that she shines not by any light of her own; for otherwise as her form is spherical, we should always behold her, like the Sun, with a full orb.

Philosophers, moreover, have observed, that one half of the Moon has no darkness at all; the Earth constantly affording it a strong light in the absence of the Sun; while the other half has alternately a fortnight's darkness and a fortnight's light. Our Earth serves as the moon to the Moon, waxing and waning regularly, but appearing thirteen times as large, and affording her thirteen times as much light as she does to us. When she changes to us, the Earth appears full to her; when she is in her first quarter to us, the Earth is in her third quarter to her; and *vice versa*.

The Moon has no visible atmosphere, of any density, surrounding her, as we have; for if she had we could never see her edge so well defined as it appears; but there would be a mist or haziness about her, which

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would make the stars look fainter when they are seen through it. But it has been proved by observation, that the stars which disappear behind the Moon, retain their full lustre, until they seem to touch her very edge, when they vanish in an instant. Nor can there be any seas in the Moon; for if there were, she could have no clouds, nor rains, nor storms as we have; because she has no such atmosphere to support the vapours which occasion them. And it is apparent to all, that when the Moon is above the horizon in the night-time, she is visible, unless the clouds of our atmosphere hide her from our view; and every part of her appears constantly with the same serene and unclouded aspect. Those dark parts of the Moon, which were formerly thought to be seas, are now found to be only vast and deep cavities, and places which reflect not the light of the Sun so strongly as others. For, by observations through the telescope, the Moon has been found to be full of high mountains and deep vallies; and some of these mountains, by comparing their height with the diameter of the Moon, are found to be three times higher than the highest hills upon our Earth

Such are the principal phenomena that distinguish this beautiful luminary. And if we advert to the signal benefits of which it is productive to our globe, we can never be sufficiently grateful to the omnipotent Creator, who in this, as well as in all his works, has displayed infinite wisdom and inexaustible goodness. How cheerless and uncomfortable would be our nights, but for the constant returns of light, which this our sister orb, our faithful and inseparable companion, dispenses in such agreeable vicissitude! How highly useful are even her eclipses, in our atmospherical, geographical, and chronological calculations! How salutary too is her attractive influence, which sways the ocean, and actuates the world of waters; which swells the tides, and perpetuates the regular returns of ebb and flow; and which thus not only preserves the liquid element itself from putrefaction, but the surrounding continents, in course, from infection and disease.

I will not here urge those sentiments of devotion, those grand and august conceptions, which this subject has a tendency to inspire. Yet not wholly to conclude this

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paper without a moral. I will just intimate to my fair readers, that Mr. Pope, from the mild serene appearance of the Moon, contrasted with the bright and dazzling lustre of the Sun, exhibits a beautiful comparison, and a portrait not less beautiful of an estimable woman. This, I am persuaded, will inculcate a lesson, which, if properly attended to by the fair, cannot fail to heighten and perpetuate every charm:

Ah! friend, to dazzle let the vain design;
To raise the thought, and touch the heart be thine;
That charm shall grow, while what fatigues the ring,
Flaunts and goes down, an unregarded thing;
So when the sun's broad beam has tired the sight,
All mild ascends the moon's more sober light;
Serene in virgin modesty she shines,
And unobserved the glaring orb declines.
Oh! blest with temper, whose unclouded ray
Can make to-morrow pleasant as to-day:
She, who can love a sister's charms, or hear
Sighs for a daughter with unwounded ear;
She, who ne'er answers till a husband cools,
Or if she rules him, never shows she rules;
Charms by accepting, by submitting sways,
Yet has her humor most, when she obeys;
Let fops of fortune fly which way they will,
Disdain all loss of tickets or codille.

ELEGANT EXTRACT.

THE fresh greenness of spring has long since passed away; the ardent heat of summer has abated; and sober autumn now makes its solemn entree into the kingdom of nature. The frost is in the air, and the sear is on the leaf. Every thing around us discourses of decay. The mutations in the microcosm of man, although slower and more gradual than among the green herbage and the lofty forest, are no less certain. Let us be wise enough to profit by the lessons which Providence has multiplied about us, and prepare ourselves for the fleeting hours which lie between us and the grave, that when we are required to go into fellowship with the worm, and mingle with the clods of the valley, we may feel within us a hope, which will sustain us above the reach of fear, and with its glorious beam gild the dark edges of the clouds of futurity.

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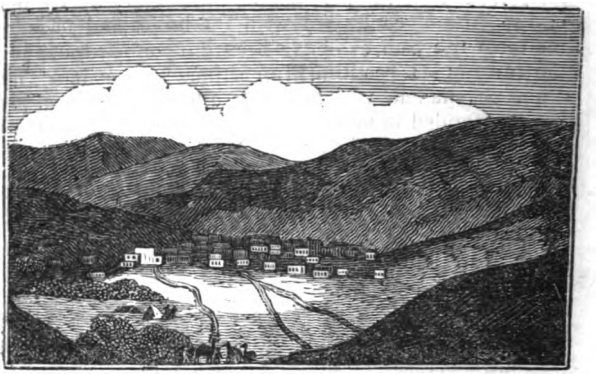

NAZARETH.

Nazareth, the modern Naszera or Nassera, seems, says one writer as if fifteen mountains met to form an enclosure for this delightful spot; they rise round it like the edge of a shell to guard it from intrusion. It is a rich and beautiful field in the midst of barren hills. The church stands in a cave supposed to be the place where the Blessed Virgin received the joyful message of the angel, recorded in the first chapter of St. Luke's Gospel. It resembles the figure of a cross. That part of it which stands for the tree of the cross is fourteen paces long and six broad, and runs directly into the grot, having no other arch over it at top but that of the natural rock. The transverse part is nine paces in length and four in width, and is built athwart the mouth of the cave. Just at the section of these divisions are erected two granite pillars, two feet in diameter, and about three feet distant from each other. They are supposed by the faithful to stand on the very places where the angel and the Blessed Virgin respectively stood at the time of the Annunciation.

When Dr. Clarke visited this sanctuary, the friars pointed out the kitchen and the fire place of the Virgin Mary; and as all consecrated places in the Holy Land contain some supposed miracle for exhibition, the

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monks, he informs us, have taken care not to be altogether deficient in supernatural rarities. Accordingly, the first things they show to strangers who descend into the cave are two stone pillars in the front of it; one of which, separated from its base, is said to sustain its capital and a part of its shaft miraculously in the air. The fact is, that the capital and a piece of the shaft of a pillar of gray granite have been fastened to the roof of the grotto; and "so clumsily is the rest of the *hocus pocus* contrived, that what is shown for the lower fragment of the same pillar resting upon the earth is not of the same substance, but of Cipolino marble."*

A variety of stories are circulated about the fracture of this miraculous pillar. The more ancient travellers were told that it was broken by a pasha in search of hidden treasure, who was struck with blindness for his impiety; at present it is said that it separated into two parts, in the manner in which it still appears, when the angel announced to Mary the glad tidings with which he was commissioned. Maundrell was not less observant than the author just quoted, although he does not so openly expose the deception. "It touches the roof above, and is probably hanged upon that; unless you had rather take the friars' account of it, namely that it is supported by a miracle."

Pococke has proved that the tradition concerning the dwelling-place of the parents of Jesus Christ existed at a very early period; because the church built over it is mentioned by writers of the seventh century. Nor is there in the circumstance that their abode was fixed in a grotto or natural cave, any thing repugnant to the notions usually entertained either of the ancient customs of the country or of the class of society to which Joseph and his espoused wife belonged. But when we are called upon to surrender our belief to the legends invented by men whose ignorance is the best apology we can urge for their superstition, a certain degree of disgust and indignation is perfectly justifiable.

In such a case we are disposed to question the good effects ascribed by some authors to the pious zeal of the Empress Helena, who, although she did not in fact erect

* Clarke, vol. iv. p. 170.

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one-half of the buildings ascribed to her munificence, most undoubtedly labored, by her architectural designs, to obliterate every trace of those simple scenes which might have been regarded with reasonable veneration in all ages of the church.

Of the original edifice, said to have been erected by the mother of Constantine, some remains may still be observed in the form of subverted columns, which, with the fragments of their capitals and bases, lie near the modern building. The present church and convent are of a comparitively recent date, at least so far as the outward structure and internal decorations are concerned; the former being filled with pictures supplied by the modern school, all of which are said to be below mediocrity.

Besides the antiquities already mentioned having a reference to the early history of our Lord, the traveller is conducted to the "workshop of Joseph," which is near the convent, and was formerly included within its walls. It is now a small chapel, perfectly modern, and whitewashed like a Turkish sepulchre. After this is shown the synagogue where the Redeemer is said to have read the Scriptures to the Jews; and also the precipice from which the monks aver he leaped down to escape the rage of his townsmen, who were offended at his application of the sacred text. "And all they in the synagogue, when they heard these things, were filled with wrath, and rose up, and thrust him out of the city, and led him to the brow of the hill whereon their city was built, that they might cast him down headlong. But he, passing through the midst of them, went his way."*

The Mount of Precipitation, as it is now called, is, according to Mr. Buckingham, about two miles distant from Nazereth; is almost inaccessible from the steep and rocky nature of the road; and is decidedly not upon the hill where the town could ever have been built. Dr. Clarke, on the other hand, maintains that the words of the evangelist are most explicit, and prove the situation of the ancient city to have been precisely that which is now occupied by the modern town. In a recess there

* Luke iv. 28, 29, 30.

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is an altar hewn out of the rock, said to be the very spot where Christ dined with his disciples. Close by are two large cisterns for preserving rain-water, and several portions of buildings, all described as the remains of a religious establishment founded by the pious and indefatigable Helena. Immediately over this scene, and on the edge of a precipice about thirty feet in height, are two flat stones set up on their edges. In the centre, and scattered over different parts of one of them, are several round marks like the deep imprint of fingers on wax; and it is insisted that these are the impression of our Saviour's hand when he clung to the stone, and thereby escaped being thrown headlong down.*

In a valley near the town is a fountain which bears the name of the Virgin, and where the women are seen passing to and fro with pitchers on their heads, as in the days of old. It is justly remarked, that, if there be a spot throughout the Holy Land which was more particularly honored by the presence of Mary, we may consider this to be the place; because the situation of a copious spring is not liable to change, and because the custom of repairing thither to draw water has been continued among the female inhabitants of Nazareth from the earliest period of its history.

As another memorial of primitive times, we may mention that it is still common in Nazareth to see "two women grinding at the mill;" illustrating the remarkable saying of our Lord in reference to the destruction of Jerusalem. The two females, seated on the ground opposite to each other, hold between them two round flat stones, such as are seen in Lapland, and which in Scotland are usually called querns. In the centre of the upper stone is a cavity for pouring in the corn; and by the side of this an upright wooden handle for moving it. To begin the operation, one of the women with her right hand pushes this handle to her companion, who in her turn sends it back to the first,—thus communicating a rotary and very rapid motion to the upper stone; their left hands being all the while employed in supplying fresh corn, as fast as the bran and flour escape from the sides of the machine.

* Travels in Palestine, vol. ii. p. 315.

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It is not without pleasure that the traveller contemplates these unaltered tokens of the simple life which prevailed in Palestine at the time when our Saviour abode in the house of Mary his mother; and more especially, as he cannot fail to contrast them with the pernicious mummery which continues to disgrace the more artificial monuments of Christian antiquity. From the extravagances chargeable upon the priesthood at all the holy places in Canaan, there has resulted this melancholy fact, that devout but weak men, unable to distinguish between monkish fraud and simple truth, have considered the whole series of topographical evidence as one tissue of imposture, and have left the Holy Land worse Christians than when they entered it. Credulity and skepticism are extremes too often found to approximate; and the man, accordingly, who suddenly relinquishes the one, is almost sure to adopt the other.

Burckhardt remarks that the church of Nazareth, next to the one over the Holy Sepulchre, is the finest in Syria, and possesses two tolerably good organs. Within the walls of the convent are several gardens and a small burying-ground; the building is very strong, and serves occasionly as a fortress to all the Christians in the town. There are eleven friars on the establishment, the yearly expenses of which, amounting to about 900*l*., are defrayed by the rent of a few houses and the produce of a small portion of land, the property of the good fathers.

Before quitting this interesting place,—the scene where our Lord passed the days of his childhood and youth,—we may observe, that there is a great variation in the accounts given by different travellers as to the number of its inhabitants. Dr. Richardson restricts it to six or seven hundred; Mr. Buckingham raises it to two thousand; while others assert that it does not fall short of half as many more. There are five hundred Turks, and the remainder are Christians,—the latter described as a civil and very industrious class of people.

Its situation is very romantic; the population amount to about twelve hundred, who are mostly Christians. The Spanish Catholic convent, in which all travellers are accommodated, is a large and excellent mansion, though the number of monks is reduced to less then one half, on account of the poverty of the establishment,

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from the failure of remittances from Europe. The church of the convent is rich, and contains a fine organ.

Of far higher interest than traditions and relics is the scenery around Nazareth: it is of the kind in which one would imagine the Saviour of mankind delighted to wander and to withdraw himself when meditating on his great mission—deep and secluded dells, covered with a wild verdure, silent and solemn paths where overhanging rocks shut out all intrusion.

No one can walk around Nazareth without feeling thoughts like these enter his mind, while gazing often on many a sweet spot traced perhaps by the Redeemer's footsteps, and embalmed by his prayers.

TOPOGRAPHICAL SKETCHES, NO. VII.

CAPITOL AT WASHINGTON.

The Capitol of the United States is situated on an area enclosed by an iron railing, and including 22 1-2 acres—the building stands on the Western portion of this plat, and commands, by the sudden declivity of the ground, a beautiful and extensive view of the city, of the surrounding heights of Georgetown, &c., and of the windings of the Potomac as far as Alexandria.—The dimensions of the building are as follows:

Length of Front, - -	352 feet 4 inches.
Depth of Wings, - -	121 do. 6 do.
East projection and steps, -	65 do.
West do. do. -	83 do.
Covering 1 1-2 acre, and 1820 feet.	
Height of Wings to top of Balustrade,	70 feet.
Height to top of Centre Dome, -	170 do.

The exterior exhibits a rusticated basement, of the height of the first story; the two other stories are comprised in a Corinthian elevation of pilasters and columns—the columns 30 feet in height, form a noble advancing Portico, on the East, 160 feet in extent—the centre of which is crowned with a pediment of 80 feet span: a receding loggia, of 100 feet extent, distinguishes the centre of the West Front.

The building is surrounded by a balustrade of stone

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THE CAPITOL AT WASHINGTON.

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and covered with a lofty Dome in the centre, and a flat Dome on each wing.

The Representatives' room is in the second story of the South wing—is semicircular, in the form of the Ancient Grecian Theatre—the chord of the longest dimension is 96 feet—the height to the highest point of the domical ceiling is 60 feet. This room is surrounded with 24 columns of variegated native marble, from the banks of the Potomac, with capitals of white Italian marble, carved after a specimen of the Corinthian order, still remaining among the ruins of Athens.

The Senate Chamber in the North wing is of the same semi-circular form—75 feet in its greatest length and 45 high—a screen of Ionic columns, with capitals, after those of the Temple of Minerva Polias, support a gallery to the East, and form a loggia below—and a new gallery of iron pillars and railings of a light and elegant structure projects from the circular walls—the Dome ceiling is enriched with square caissons of Stucco. The Rotunda occupies the centre, and is 96 feet in diameter, and 96 high. This is the principal entrance from the East Portico and West stair, and leads to the legislative halls and library. This room is divided in its circuit into panels, by lofty Grecian pillasters or antœ, which support a bold entablature, ornamented with wreaths of olive—a hemispherical dome rises above, filled with large plain caissons, like those of the Pantheon at Rome. The panels of the circular walls are appropriated to painting and bas relievos of historical subjects. Passing from the Rotunda, westerly, along the gallery of the principal stairs, the Library room door presents itself. This room is 92 feet long, 34 wide, and 36 high; it is formed into recesses or alcoves for books on two sides, by pillasters, copied from the Portico of the Temple of the Winds at Athens—a light stair in each corner of the room leads to a second range of alcoves, and the whole is covered by a rich and beautiful stuccoed ceiling. This room has access to the western loggia, from which the view of the city and surrounding country appears to great advantage. Besides the principal rooms above mentioned, two others deserve notice, from the peculiarity of the architecture —the round apartment under the Rotunda, enclosing

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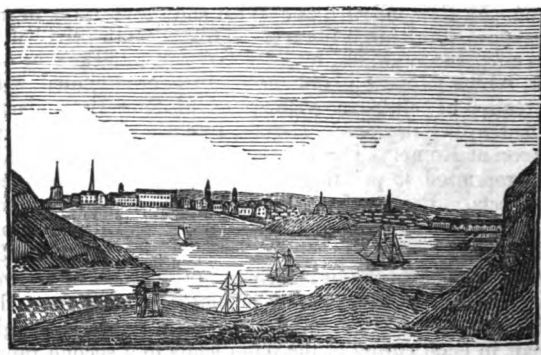
forty columns supporting round arches, which form the floor of the Rotunda. This room is similar to the substructions of European Cathedrals, and may take the name of Crypt from them; the other room is used by the Supreme Court of the United States—of the same style of Architecture, with a bold and curiously arched ceiling, the columns of these rooms are of a massy Doric imitated from the Temples of Pœstum. Twenty-*five* other rooms, of various sizes are appropriated to the officers of the two houses of Congress and of the Supreme Court, and forty-five to the use of committees; they are all vaulted and floored with brick and stone.—Three principal stair cases are spacious and varied in their form; these with the vestibules and numerous corridors or passages, it would be difficult to describe intelligibly; we will only say, that they are in conformity to the dignity of the building and style of the parts already named.



VENICE.

The view of Venice, at some little distance from the town, is mentioned by many travellers in terms of the highest admiration. It is said to be built in the sea, that is, it is built in the midst of shallows which stretch some miles from the shore, at the bottom of the Adriatic gulph. Though these shallows, being now all covered

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with water, have the appearance of one great lake; yet they are called Laguna, or lakes, because formerly as it is imagined, they were several. On sailing on the Laguna, and looking to the bottom, many large hollows are to be seen, which at some former period have, very possibly, been distinct lakes, though now, being all covered with a common surface of water, they form one large lake, of unequal depth. The intervals between those hollows, it is supposed were little islands, and are now shallows, which, at ebb; are all within reach of a pole.

When you approach the city, you come along a liquid road, marked by rows of stakes on each side, which direct vessels, of a certain burden, to avoid the shallows, and keep in deeper water. These shallows are a better defence to the city than the strongest fortifications. On the approach of an enemy's fleet, the Venetians have only to pull up their stakes, and the enemy can advance no farther. They are equally beyond the insult of a land army, even in the midst of winter; for the flux and reflux of the sea, and the mildness of the climate, prevent such a strength of ice as could admit the approach of an army that way.

The lake in which Venice stands, is a kind of small inner gulph, separated from the large one by some islands, at a few miles distance. These islands, in a great measure, break the force of the Adriatic storms, before they reach the Laguna; yet, in very high winds, the navigation of the lake is dangerous to gondolas, and sometimes the gondoliers do not trust themselves, even on the canals within the city. This is not so great an inconveniency to the inhabitants, as you may imagine; because most of the houses have one door opening upon a canal, and another communicating with the street; by means of which, and of the bridges, you can go to almost any part of the town by land as well as by water.

The number of inhabitants are computed at 150,000; the streets in general are narrow; so are the canals, except the grand canal, which is very broad and has a serpentine course through the middle of the city. They tell you there are several hundred bridges in Venice. What pass under this name, however, are single

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arches thrown over the canals; most of them paltry enough.

The Rialto consists also of a single arch, but a very noble one and of marble. It is built across the grand canal, near the middle, where it is narrowest. This celebrated arch is ninety feet wide on the level of the canal, and twenty-four feet high. Its beauty is impaired by two rows of booths, or shops, which are erected upon it, and divide its upper surface into three narrow streets. The view from the Rialto is equally lively and magnificent. The objects under your eye are the grand canal, covered with boats and gondolas, and flanked on each side with magnificent palaces, churches, and spires; but this fine prospect is almost the only one in Venice; for except the grand canal, and the canal Regio, all the others are narrow and mean; some of them have no quays; the water literally washes the walls of the houses. When you sail along these wretched canals, you have no one agreeable object to cheer the sight and the smell is overwhelmed with the stench, which, at certain seasons, exhales from the water.

DEPARTMENT OF NATURAL HISTORY.

THE COCHINEAL-INSECT.

They vary in figure, some being globular, some flattened, or slightly convex like the bottom of a boat, or kidney-shaped. Some of these do not exceed in size a pepper-corn, others become as large as a pea.

These extraordinary creatures form the genus *coccus* of Linnæus, and are to be reckoned among the insects

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which are directly useful to man. Formerly, a species of these insects, the *coccus Polonicus*, formed a considerable article of commerce in Poland. The *coccus cacti*, or the cochineal insect of South America, however, has now, by the superiority of the crimson dye it affords, superseded the other. In 1518, the Spaniards found it used by the Americans, for the purpose of dyeing; yet its true nature was not discovered for nearly two centuries after, when the observations of Hartsoeker, Leeuwenhoek, De la Hire, and Geoffroy clearly proved it to be an insect, and not, as was supposed, a grain, or seed. This insect feeds on the nopal, which is a species of fig-tree very common in New Spain, and in some parts of India: the leaves are thick, and full of saccharine juice. At the approach of the rainy season the cultivators sweep from the leaves several little insects, resembling a bug, which suck the green plant. They preserve them in their own houses, and feed them with the branches of the nopal. At the close of the rainy season twelve or fourteen of these insects, by that time grown strong, are put into little baskets made of moss or the down that covers the cocoa-nut. These baskets are placed on the nopal, and in a few days the cochineal insects spread themselves over the tree, and give birth to an infinite number of young. In the immediate vicinity of Oaxaca, the cultivators of this insect feed it in the plains during the dry season, which extends from October to April. In the month of April the rain sets in, and continues until October. At the beginning of this season they transport their stock of insects, and place them to feed on plantations of nopals in the neighboring mountains, where the weather is more favorable. The dams live but a little time after they have laid their eggs, and are what may be called the first crop. The young, forsaking the baskets, disperse themselves over all the verdure of the nopal, and thrive to that degree, that in the space of three months they become prolific in their turn. The second brood are permitted to live, but all the parents are carried home and killed: the new offspring on the tree have likewise their young at the end of about three months; but lest they should all be destroyed by the rainy season, the cultivators carry home the parents as well as the off-

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spring, and this is the third produce. A sufficient number of the young insects are preserved to continue the species the next year, and all the rest are killed in hot water, or ovens, or upon the flat stones with which the women bake their bread. The inside of the insects thus destroyed is filled with the beautiful red dust so well known to dyers. Plantations containing fifty or sixty thousand trees, growing in straight lines, may be seen in some districts of America. The quantity of insects annually exported from South America is valued at 500,000*l*. The figures of the female cochineal-insect, magnified, will give a good idea of this genus generally.

Their trunk is so brittle that they cannot be moved from their place without breaking it: an accident which proves fatal to them: the consequence is, that during the whole term of their life they remain fixed to the spot where they first settled, and to the vegitable nipple which feeds them. When the females have attained the age of puberty, the males are supplied with wings, and enabled to quit the plant on which they are hatched. The females remain stationary, and hatch their young on the spot; but the latter would soon become so numerous as to be at a loss for space to feed on, while they are so delicate, that it would be impossible for them to pass from one plant to another, if nature did not provide for them admirable means of emigration: at the period of their birth a multitude of spiders fasten their nets to the leaves of the nopal; and it is along these slender threads which answer the purposes of a bridge, that the brood of the cochineal-insect emigrates to the neighboring tree in quest of food.

The gall-nuts used in making ink are produced by an insect which punctures the leaves of a species of oak very common in Asia Minor, where they are collected in considerable quantities by the poorer inhabitants: from the different ports of the Levant they are exported

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to various parts of the world. The galls held in the greatest estimation are those known in commerce under the name of blue galls. These are the produce of the first gathering, before the fly has issued from the gall. Those which may have been overlooked in the first gathering, and from which the fly may afterward have emerged in its perfect form, are called white galls: these are of very inferior quality, containing less of the astringent principle than the blue galls, in the proportion of two to three.

The true vermilion kermes, and a variety of other valuable colors or drugs have no other origin than the punctures of different insects: many plants are covered with them, and it seems probable that we daily import from other countries commodities which we might procure at home. The persons who gather the kermes take the insect when ripe and spread it upon linen, turning it at first while it abounds in moisture twice or thrice a-day, to prevent its heating. When there appears red powder among it, they separate it, passing it through a sieve, and then again spread out the grain upon the linen until more red powder becomes visible; and the same process is repeated until it ceases to yield any more of this substance.

In the beginning, when the small red grains are seen to move, as they will do, they are sprinkled over with strong vinegar, and rubbed between the hands; afterward, little balls are made of them, which are exposed to the sun to dry. If this powder should be let alone, without pouring vinegar or some other acid liquor upon it, out of every grain would come forth a little fly, which would skip and wing about for a day or two, and at last, changing its colour, fall down quite dead.

One of these insects, which sucks the juice of the peach, is bell-shaped; its skin, which is all that can be seen, is exactly like the fine bark of the cherry-tree. On looking at the peach, some of these gall-insects may be observed dry and dead, others alive, though immoveable; those on the old branches are for the most part of the former, those in the new shoots of the latter class. They may farther be known by the color of the latter being more brilliant than that of the former; and also by the dead ones being easily pushed off with the finger or

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a penknife, while the live insect adheres: a more violent push kills them; and they yield a thick liquid substance, similar to that which is produced by crushing any other species of living insect. The spot from whence the coccus has been removed is covered with a downy cotton, which transpires or exudes from the abdominal surface of the insect.

If the coccus of the peach be examined about the end of May, it will be difficult to persuade ourselves that the little skinny globe which presents itself to the eye is an insect: there is no fleshy texture; it has the appearance of a little tortoise-shell, under which is concealed an infinite number of very diminutive grains; these are the eggs of the insect, which, when expelled are hatched under the carcass of their dead parent. If these protuberances be removed, beginning at the top and proceeding downwards, so as not to let their eggs fall, they may

readily be collected. In these figures the little dots represent the eggs; if, however, the gall-like protuberance be transversely divided with a penknife, both the contents and the arrangement of the eggs will be observed more readily. Hence it would seem, that at first these creatures have a form like many other insects, that after a time they fix themselves to the tree, and suck its juice, and that their extraordinary distention is owing to an innumerable quantity of eggs contained at first within the abdomen, and ultimately protruded. Nature has taught most other insects to protect their young by furnishing them in their period of helplessness with a habitation composed of silk or some other substance. The coccus, however, from the moment the eggs are laid, defends them from the elements and their natural enemies by its own body, and after death still shelters them with its carcass. It may at first sight appear extraordinary that a fleshy body, when dead, should not putrefy; this, how-

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ever, will be intelligible, if the following figures be attended to. The first (*fig.* 1) represents the under sur-

face of the insect; this is nearly plane, and is exactly fitted to the tree. As the eggs are protruded, they are placed, by a sort of peristaltic motion, between the skin of the belly and the layer of cotton which covers the spot of the tree to which the insect is attached. As more eggs are laid, the skin of the belly is pushed nearer that of the back, till at length the two skins are thrust close together by means of the eggs, and the under part of the insect assumes a concave shape (*fig.* 2). Under the influence of this presure, an absorbing process goes on, which leaves no putrescible matter behind. Hence it arises that, when our little insect yields to the general law, and dies almost immediately after perpetuating the species, its carcass is as sure a protection to its young, when dead, as its body was when alive.

The time during which the young cocci remain in the egg is not determined by Reaumur; he conjectures, however, that they take twelve days, and afterward remain several days under the skin of their mother, before they emancipate themselves, and go out into their little world of leaf or stem. At this period of their existence, they exhibit, in their activity, nothing of the peculiarities, just detailed; they soon, however, select and fix upon a suitable part of a plant: the male insect, which is destined to become a small winged creature, as soon as it has its wings, crawls out backwards from its larval skin, which served it for a cocoon while undergoing its nymphine metamorphosis.

The opening by which they quit their maternal prison is provided also by nature. The posterior portion of the body of the mother is cloven, and cannot be exactly fitted to the tree—hence, the young can escape without lacerating those parental remains which had sheltered them even after death.

After having got abroad, they fix themselves to the

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leaves of trees, and their growth from June to October, when they enlarge a little, is slow, but it is only in the following April that they begin to assume perceptibly a globular shape. At the falling of the leaf, however, nature has taught them to retire to the stem of the tree, where they finish their life. As soon as the male has acquired wings, it does not fly away, but walks, and it is towards the females fixed on the tree that its steps are directed. The size of the former is so small, in comparison with that of the latter, that the globular body of the female appears a spacious territory, for the diminutive male to walk about.

There are other kinds of gall-insects, which do not cover their young with their bodies, but secrete a quantity of downy cotton, sufficient to form a species of cocoon, on which they perch themselves. The dark spot is the insect, the white bag the cocoon.

THE LADIES' GARLAND.

FEMALE INFLUENCE.

BY CATHERINE E. BEECHER.

Woman has been but little aware of the high incitements that should stimulate to the cultivation of her noblest powers. The world is no longer to be governed by mere physical force, but by the influence which mind exerts over mind. How are the great springs of actions of the political world put in motion? Often by the secret workings of a single mind, that in retirement plans its schemes, and comes forth to execute them only by presenting motives of passion, self interest, or pride, to operate on other minds.

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Now the world is chiefly governed by motives that men are ashamed to own. When do we find mankind acknowledging that their efforts in political life are the offspring of pride, and the desire of self aggrandizement, and yet who hesitates to believe that this is true?

But there is a class of motives that men are not only willing, but proud to own. Man does not willingly yield to force. He is ashamed to own he can yield to fear. He will not acknowledge his motives of pride, prejudice, or passion. But none are unwilling to own they can be governed by reason, and even the worst will boast of their being regulated by conscience; and where is the person who is ashamed to own the kind and generous emotions of the heart?—Here, then, is the only lawful field for the ambition of our sex. Woman, in all her relations, is bound to "honour and obey" those on whom she depends for protection and support; nor does the truly feminine mind desire to exceed this limitation of Heaven. But where the voice of authority may never control, the dictates of reason and affection may ever convince and persuade; and while others are governed by motives that mankind are ashamed to own, the dominion of woman may be based on influence the heart is proud to acknowledge.

And if it is, indeed, the truth, that reason and conscience guide to the only path to happiness; and if affection will gain a hold on these powerful principles which can be attained no other way, what high and holy motives are presented to woman for the culture of her noblest powers. The developement of the reasoning faculties, the fascinations of a purified imagination, the charms of a cultivated taste, the quick perceptions of an active mind, the power of exhibiting truth and reason by perspicuous writing—all these can be employed by woman, as well as by man. And with these attainable facilities for gaining influence, woman has already received from the hand of her Maker those warm affections and quick susceptibilities which can most surely gain the empire of the heart.

Woman has never waked to her higher destinies and holiest hopes. She has yet to learn the purifying and blessed influence she may gain and maintain over the intellect and affections of the human mind.—Though

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she may not teach from the portico, nor thunder from the forum, in her secret retirements she may form and send forth sages that shall govern and renovate the world. Though she may not gird herself for bloody conflict, nor sound the trumpet of war, she may enwrap herself in the panoply of Heaven, and send the thrill of benevolence through a thousand youthful hearts. Though she may not enter the lists in legal collision, nor sharpen her intellect amid the passions and conflicts of man, she may teach the law of kindness, and hush up the discords of life. Though she may not be clothed as the ambassador of Heaven, nor minister at the altar of God, as a secret angel of mercy she may teach its will, and cause to ascend the humble but most accepted sacrifice.

THE PRINTING PRESS IN TURKEY.

Mr. Mountstuart Elphinstone, in his very interesting account of the kingdom of Caubul, a country near the higher waters of the Indus, between India and Persia, and of the scattered Afghan tribes dependent thereon, gives the following anecdote of the Naikpeekhail, who like the rest profess the Mahommedan religion, but are so barbarous that even reading is considered an unmanly accomplishment among them.

"Some men of the Naikpeekhail found a Mollah, or doctor of the Mahommedan faith, copying the Koran, and not well understanding the case, they struck his head off, saying, 'you tell us these books come from God, and here you are making them yourself.'"

The Turks are not so ignorant as this, but even they, a few years ago, when Sultan Selim introduced the art of printing, believed that it was sinful to print the Koran, that nothing but the pen could without impiety multiply the copies of their scriptures. Other works might go through the press, but unfortunately at the time the Turks had no book except the Koran, and so the inestimable benefit of printing was to be thrown away upon them!

The present sultan, Mahmoud, among his many reforms and improvements, has succeeded in setting the

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press to work in earnest. Many elementary works have been printed, some of a high character on History and General Geograpy. And now a Newspaper! is regularly issued from the Sultan's printing offices and circulated through his vast dominions. We are informed by a friend, that it is a very interesting sight to see the effects that have already sprung from these salutary measures. Instead of every coffee house being crowded as it used to be by idle, silent, stupified loungers, doing nothing but smoking their pipes, you find them now occupied by men attentively reading the newspaper, in conning over "the last new work," neatly printed and sold at a very cheap price. Before this, and almost up to the last year, they were in the condition that all Europe was in four hundred years ago, or previously to the invention of printing, when only the rich could afford to buy a book, or any thing to read. Even on the quays of the port, and in the bazaars of Constantinople, you now see the Turks occupying their leisure moments, with the productions of the PRINTING PRESS, which is thus becoming, day by day, more and more active, and extending to the regions of the east that revolution which it has already effected in other parts of the earth. The light of learning originally traveled from the east to the west, it is now taking a contrary direction, and the west, in the present it has lately made, will soon have repaid a thousand fold all the obligations it has received.

TRIUMPH OF ELOQUENCE.

AN interesting incident occurred at the close of an argumentative and eloquent appeal in favor of the temperance cause delivered by Professor Davies, at West Point, on a Sunday evening. In the course of the address the orator had, with his characteristic clearness of mind, set before us the evils of intemperance to the community in general—showing that, before the institution of temperance societies, thirty-five thousand of our population had been annually destroyed by this scourge—worse than pestilence or war,—property, equally with life, had fallen before it.

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Twenty-eight millions of dollars annually was the tax, which, as a nation, we paid to intemperance; and was there not a call that we should arise in our united might to oppose it? What should we think of a citizen who, if an army should pass through our land annually, levying a tribute of twenty-eight millions and slaying thirty-five thousand of our countrymen—what should we think of him who should refuse to oppose this enemy? Much more should we oppose this insidious foe, which brought not only poverty and death, but sin. Mr. Davies here showed the great good temperance societies had effected to the diminution of the evils which he had stated: though what remained were still of awful magnitude.

The orator here became pathetic; for though the subject is hackneyed, we were made to feel that the picture of the wreck of humanity, which is set before us, was that of a friend; and, alas! most of us could have assigned a habitation and a name—aye, aye, and a name once dear as our life-blood, to the being which the orator set before us, in the affecting change which we were doomed to see. The eye once beaming with intelligence and affection for us fixed in the glance of worse than idiocy. Imbecile and tottering, we offer him our aid, and he does not know us!—The orator then pressed home the arguments, that all should unite in the associations formed against intemperance—if not for themselves, yet for the sake of others. If one among us was known to be in some physical danger which we could avert, would not all arouse to save him? We ought not to say that we wish well to the cause, yet do nothing, because what we can do is so little. The rain by which God gives his harvest to man, comes in single drops. The young cadets were appealed to by every motive which touches the heart. The parental form seems again to stand before each one, pronouncing the simple benediction and charge with which he left his home,—God bless you, my son! do well! By all these endearing recollections they were exhorted to place themselves out of the reach of contamination by intemperance, by solemnly pledging themselves to abstain from ardent spirits. The audience, during this address, which gave us time to draw our minds to the subject, but was not

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long enough to fatigue, had settled into profound attention. The moment the orator closed, a startling voice of an old man strongly moved, exclaimed, Professor Davies! Professor Davies! We turned our eyes, and beheld, rising from his seat, the venerable figure and the white head of one of the few relics of our revolution—the worthy Major Alden, once aid to General Knox. "Professor Davies," said the excellent old man, "I want an opportunity to sign that constitution. I thought from my age that my influence would be of no avail, but I was wrong, and now, and here, the old officer will sign the constitution."

The murmur of applause grew loud, the interesting young cadets showed by their countenances the ardor with which their intelligent and sensitive minds were inspired by a generous cause; and as the venerable speaker uttered, in a voice made shriller by emotion—"but now the old officer will sign that constitution,"—a voice from the moving crowd exclaimed,—"and the young ones will follow you.' Whether or not this was the voice of one of the cadets, I could not tell; but we learned the next day, that many of them had signed the constitution, and others had begged that copies of it might be sent to their rooms.

FLOWERS.

The interest which flowers have excited in the breast of man from the earliest ages to the present day, has never been confined to any particular class of society or quarter of the globe. Nature seems to have distributed them over the whole world, to serve as a medicine to the mind, to give cheerfulness to the earth, and to furnish agreeable sensations to its inhabitants.

The savage of the forest, in the joy of his heart, binds his brow with the native flowers of the woods, whilst a taste for their cultivation increases in every country in proportion as the blessings of civilization extend.

From the humblest cottage enclosure to the most extensive park and grounds, nothing more conspicuously bespeaks the good taste of the possessor, than a well cultivated garden; and it may very generally be remarked,

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that when we behold a humble tenement surrounded with ornamental plants, the possessor is a man of correct habits, and possesses domestic comforts; whilst, on the contrary, a neglected, or weed-grown garden, or its total absence, marks the indolence and unhappy state of those who have been thus neglectful of Flora's favors.

Of all luxurious indulgences, that of flowers is the most innocent. It is productive not only of rational gratifications, but of many advantages of a permanent character. Love for a garden has powerful influence in attracting men to their homes, and on this account, every encouragement given to increase a taste for ornamental gardening is additional security for domestic comfort and happiness. It is, likewise, a recreation which conduces materially to health, promotes civilization, and softens the manners and tempers of men. It creates a love for the study of nature, which leads to a contemplation of the mysterious wonders that are displayed in the vegetable world around us, and which cannot be investigated without inclining the mind towards a just estimate of religion, and a knowledge of the narrow limits of our intelligence, when compared with the incomprehensible power of the Creator.

Flowers are of all embellishments the most beautiful, and of all created beings, man alone seems capable of deriving enjoyment from them. The love for them commences with infancy, remains the delight of youth, increases with our years, and becomes the quiet amusement of our declining days. The infant can no sooner walk than its first employment is to plant a flower in the earth, removing it ten times in an hour to wherever the sun seems to shine most favorably. The schoolboy, in the care of his little plat of ground, is relieved of his studies and loses the anxious thought of the home he has left. In manhood our attention is generally demanded by more active duties, or by more imperious and less innocent occupations; but as age obliges us to retire from public life, the love of flowers and the delights of a garden return to soothe the latter period of our life.

To most persons, gardening affords delight as an easy and agreeable occupation; and the flowers they so fondly rear, are cherished from the gratification they afford to

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the organs of sight and of smell; but to the close observer of nature and the botanist, beauties are unfolded and wonders displayed, that cannot be detected by the careless attention bestowed upon them by the multitude.

In their growth, from the first tender shoots which rise from the earth, through all the changes which they undergo to the period of their utmost perfection, he beholds the wonderful works of creative power; he views the bud as its swells, and looks into the expanded blossom, delights in its rich tints and fragrant smell, but above all, he feels a charm in contemplating movements and regulations before which all the combined ingenuity of man dwindles into nothingness.

VALUE OF THE SOUL.

After Saladin the Great had subdued Egypt, passed the Euphrates, and conquered cities without number; after he had re-taken Jerusalem, and performed exploits almost more than human in those wars which superstition had excited for the recovery of the Holy Land, he closed his life in the performance of an action, which well deserves to be noticed. A moment before he uttered his last sigh, he called the herald who had carried his banner before him in all his battles;—he commanded him to fasten to the top of a lance the shroud in which he was soon to be buried. "Go" said the dying prince, "carry this lance, unfurl this banner, and while you lift up this shroud as my standard, proclaim—This is all that remains to Saladin the Great, the Conqueror, and the King, of all his glory!"

Christians, (continues our Preacher) I this day would perform to you the office of this herald. I would unfurl and display in all their pomp, sensual and transitory pleasures, worldly riches and human honours: all these I reduce to the shroud, in which you will shortly be entombed; this standard of death I lift up in your sight, and I tell you this is all that will remain to you of the posessions, for which the tempter seduces you to exchange your souls. Are such possessions too great to be given up in exchange for a soul? Can their perishing value outweigh the soul's immortality? Do

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you not feel, in your consciences and hearts, the deep import, the awful truth of our Lord's question? What shall a man, a rational man capable of comparing eternity with time, what shall such a one consent to take in exchange for his soul?

Compared with this, how worthless is the flash of transient gaiety, or the false glare of worldly pride? Oh! my friends, where is our faith; nay, I will add, where is our reason? Why are not our desires, and our hopes, more constantly directed upwards to that crown of glory, reserved for the followers of God? Surely, one ray from that resplendent diadem might be sufficient to overpower and extinguish the glittering charms of these transitory vanities, which owe all their lustre to the darkness in which they are placed! Surely, when our spirits are overwhelmed within us, one glance of this celestial glory might be sufficient to animate and brighten them; and might enable us to exclaim with the Apostle, though in the midst of sorrows, of dangers, and of death—"In all these things we are more than conquerors through him that loved us!" *Graves.*

VALUE OF TIME.

People often waste time because they do not know how to save it, or how to use it. The day and the year are of the same length to us all; but to look at what some contrive to do in a day or year, one would think they had more time allowed to them than other people have, or that they knew how to live without sleep. The secret is, that they never waste any time; they do not pass half an hour in doing nothing, because half an hour is not an hour; and a few half hours put together almost make a day

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EXAMPLE BETTER THAN PRECEPT.

We will find in the conduct of Plato, a noble instance of the power of example over precept. His nephew Pseusippus, who became excessively debauched, was turned out of doors by his parents. Plato took him in, and entertained him, as if he had never heard a word of his debaucheries. His friends, amazed and shocked at a procedure that seemed to them to carry in-

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sensibility in it, blamed him for not laboring to reform his nephew, and save him from utter ruin. Plato answered, that he was laboring more effectually than they imagined, in letting him see by the manner of his living, what an infinite difference there is between vice and virtue, and between honorable and base things. This method succeeded so well, that it inspired Pseusippus with a great respect for his uncle, and a violent desire to imitate him, and to devote himself to the study of philosophy, in which it is said he afterwards made great progress.

Evil examples are as dangerous as good examples are beneficial. For as the slightest touch will defile a clean garment, which is not to be cleaned without a great deal of trouble, so the conversation of the wicked and debauched will in a very short time defile the mind of an innocent person, in a manner that will give him great trouble to recover his former purity. You may therefore more safely venture into company with a person infected with the plague, than with a vicious man: for the worst consequence of the first is death; but of the last the hazard of a worse destruction. For vicious people generally have a peculiar ambition to draw in the innocent to their party; and many of them are furnished with artifices and allurements but too effectual for ensnaring.

POLISH HEROISM.

At the storming of Warsaw, the principal battery was defended by only two battalions. but with such bravery as history can hardly parallel. When it was evident that it could no longer hold out, several privates of the artillery seated themselves on powder barrels and blew themselves up. But the conduct of Gen. Sowimski was truly heroic; having lost one foot, he was, at his own particular request, seated on a chair, and placed on the altar of the desperately defended church, where he continued to give orders until the last of his comrades was cut down, when drawing forth two pistols, he, with one, shot a Russian who was rushing upon him, and, with the exclamation, "So dies a Polish general!" fired the other through his own heart.

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POETRY.

THE NATIVITY.

A light is kindling o'er the midnight sky
Of broad unwonted brightness; the hush'd air
Is filled with sounds of strange, sweet melody,
As though an angel choir were hymning there
Celestial strains; and each aerial power
Had lit the starry lamp within his beacon tower.

And hark! fresh sounds; and lo! the scattered beams
Condense into a wreath of living light;
Pure as the chaste, cold moon-beams, yet more bright
Than the full noon-tide blaze, behold it streams
Above, around an earthly dwelling-place—
Heaven sheds its purest rays on some of mortal race.

Why shine ye thus, ye heavens? and wherefore, earth,
Art thou thus graced by splendors not thine own?
Say, who and where is he at whose glad birth
Revealed, the glory of the Lord hath shown?
Not thus it kindled when the law was given,
And through its central cave was startled Sinai riven!

Is it the hoped Deliverer, whose dread sword
Shall smite the heathen hosts in holiest war?
Is it the sceptre,—now at length restored
To Judah's royal line? the sacred Star
That shall outshine the day's proud orb, and bless
Glad Israel's rescued seed, a Sun of Righteousness?

'Tis all! 'tis more! upon a lowly bed
Within a lowliest dwelling, there is One,
Not earthly, though on earth; and though the Son
Of God, yet born of woman! Round his head
Those rays are circling, till they seem to shine
With such resplendent blaze as gilds the throne divine!

Well may they shine! It is the promised Son,
Emmanuel, God with us; revealed on earth
The living image of the viewless One!
Well may they shine! By his auspicious birth
Peace comes to dwell on earth,—joy reigns in heaven,—
Hell trembles, sin is chained, death vanquished, man forgiven!

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THE STAR IN THE EAST.

Night flung a sable stole o'er Bethlehem
On which, as on a velvet ground, each gem,
Strown beautiful and grand, lay glorious there;—
And yet was seen, embosomed in the air,
One star to astrologic lore unknown,
That like a flame of Love on midnight's ocean shone!

Low o'er Olivet's trembling outline hung
This new-born flame, whence milder splendors sprung
Than ever flooded heaven or silvered earth;
Hail thou, bright herald of my Saviour's birth!
Were every golden urn of Vesper dim,
Thy gushing fount of light would roll its waves to Him!

Now heaving up the skies—an eye of love,
The magi saw the wonder roll above
The arc where constellations gambol wild—
They saw—and knew that Heaven's great monarch smiled,
And took their jewelled gifts in haste to crown
The kingly head that drew such rays of glory down!

On Bethlehem's manger low, the radiance glowed
With ten fold beauty as a Babe it showed—
'Twas Christ—Creator and Redeemer—there
Nursed by the virgin in a straw-built lair;
Oh, let my contrite soul with wise men bow
To Him who died for me—yet lives in glory now. J.N.M.

LINES WRITTEN IN DEJECTION.

I strive in vain—I strive in vain—to still this throbbing breast,
Sorrow's keen dart is rankling there—it steals, it steals my rest:
I once knew peace, but peace has flown—a blight hath damm'd my years,
And paths that once were strew'd with flow'rs, are moistened now with tears.

Fr.r o'er dark ocean's waves I've roamed, o'er mountain wilds I've strayed, [have play'd:
When gathering thunders round have roll'd, and lightning's fires
I've wak'd to hail the morning's dawn—watch'd eve's expiring ray,
Too blest to think life's brightest hours, e'en thus, would pass away!

Then I was young—and vainly deem'd this world was made for me,
Its spangled skies—its hills and vales—its blue ethereal sea;
I deem'd that all was all it seem'd—too young, alas! to know
That under Nature's fairest hues, the rankest poisons grow.

I deem'd not then how soon proud Death earth's firmest bonds can sever;
How coldly hearts, that once lov'd deep, can part, aye, part forever;

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How friends prove false—how angel-hopes dissolve themselves in air, [Despair!
And Fiends usurp the Throne they held—Revenge—Remorse—

I knew not this—I feel it now—e'en more than I can speak;
And, feeling thus, 'tis true, methinks, this bankrupt heart should break;
For oh! its strings are aching so, such withering grief lies there,
'Twere kind in fate to rescue me from pains I ill can bear!

Who, when life's morning hours are past, its sunniest moments fled,
Each hope o'erthrown, each charm dissolved, its every garland dead—
Would wish, still wish, to wander on in this cold world unknown
To stand, like the blasted tree of old, unpitied and alone!

But yet, oh! yet be calm my soul! thou hast a guardian still,
One who will aid thy tott'ring steps in darkest hours of ill:
On Him, the Rock of Ages, cast the burden of thy care,
In faith that they who seek, shall find, a resvite from Despair!

Upon this Rock, when heart, and flesh, and earthlier succors fail,
Thou still, my wearied, sinking soul, in humble hope shalt dwell:
Then, though mid wind and storms, thy bark sink in Time's troubled wave,
That latest anchor shall be thine in shores beyond the grave! H.W.

THE WATCH TOWER LIGHT.

Seen from my window at midnight.

'Tis midnight deep,—the storm is loud,
And wild the gale is roaring;
And from a dark and watery cloud
Impetuous rain is pouring.
No star to gild the threat'ning sky
With cheerful light is gleaming,
But bright, from yonder beacon high
The *watch tower light* is streaming.

And though the night is dark and drear,
And though the storm grows wilder;
That light the gath'ring gloom can cheer
And make its terrors milder.
It shines like youth's unclouded dreams
When hope and joy are beaming,
And bright as truth's unsullied beams,
The *watch tower light* is streaming.

So on life's dark tempestuous way,
Where pain and bliss are twining,
May holy hope's unclouded ray
On me be ever shining;
And blest religion's tranquil light
Be ever round me beaming,
As o'er this dark and dreary night,
The *watch tower light* is streaming.—Mrs. Thayer.

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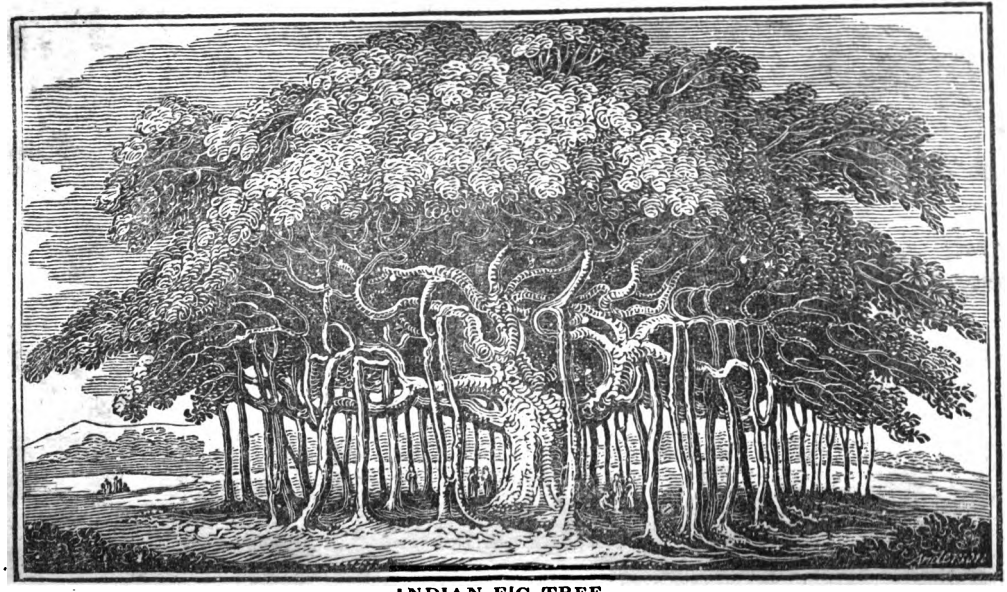

INDIAN FIG TREE.

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THE

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Entertaining Knowledge.

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FICUS INDICA.—THE INDIAN FIG.

The different varieties of the Fig Tree are very common in Palestine and other eastern countries, and they flourish with the greatest luxuriance in those barren and stony situations where little else will grow. In the Hebrew scriptures the fig is called *Fanch*, "the grief tree," from the roughness of the upper surface of the leaf, which causes it to irritate and fret such parts of the human body as it is applied to. Hence the Rabbins and several of the Christian Fathers, represent Adam as selecting this tree—a kind of natural sackcloth—to clothe himself and his wife immediately after the fall, for the purpose of acknowledging his fault and expressing his contrition.

The traditions of the Greeks carry the origin of the Fig back to the most remote antiquity. It was known to the people of the East before the *Cerealia*; and stood in the same relation to the inhabitants as the banana does to the Indian tribes of South America at the present day. With little trouble of cultivation it supplied their principal necessities; and furnished them with a source, not, as with us, of occasional luxury, but of constant food. The want of blossoms on the Fig Tree, was regarded by the Jews as a most grievous calamity. Cakes of Figs were included in the presents of provisions by which the widow of Nabal appeased the wrath of David. In Greece when Lycurgus decreed that the Spartan men should dine in a common hall, flour, wine, cheese, and figs were the principal contributions of each

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individual to the common stock. The Athenians considered figs an article of such necessity that their exportation from Attica was prohibited. Either the temptations to evade this law must have been great or the law itself must have been very much disliked; for the name which distinguished those who informed against its violators was a general term of reproach, and was the same from which we derive our term sycophant from two Greek words signifying *a fig* and to *shew*. As used by our writers this term implies a flatterer, but the French employ it to designate a liar and an impostor generally. In Rome the Fig was carried next to the vine in the processions in honor of Bacchus as the patron of plenty; and Bacchus was supposed to have derived his corpulence and vigor, not from the vine but from the fig. These circumstances show how largely this tree contributed to the support of man, and the veneration in which it was accordingly held by the nations of antiquity.

In the East the fig tree grows to a considerable size; so large indeed as to afford the weary traveller a convenient shelter from the noon day sun. Hasselquist says that when travelling from Tiberias to Nazareth, they refreshed themselves under the shade of one of these trees, under which was a well where a shepherd and his herd had their rendezvous, but without either tent or hut.—And Monyson speaks of "coming to a little shade of fig trees, where we rested during the heat of the day and fed upon such viands as we had."—This cannot but remind the scriptural reader of such passages as the following. "And Judah and Israel dwelt safely, every man under his fig tree, from Dan to Beersheba."—"They shall sit, every man under his vine and under his fig tree, and none shall make them afraid."—see also, Zech. iii. 10. and John i. 48.

The double, and, in some climates, the treble crop of the fig tree, is one of the most curious circumstances belonging to its natural history, and further illustrates the value attached to it in the East. The first ripe figs come to maturity about the latter end of June, though some few may ripen before the full season. These few are probably of inferior value, for the Prophet says, "I found Israel like grapes in the wilderness; I saw your

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fathers as the first ripe in the fig tree at her first time."

There are several varieties of the fig tree described by botanists. Of these we have given a drawing of the *Ficus Indica*, or Banian tree of the East. This majestic tree, the wonder of the vegetable world, claims our attention, not so much as a fruit tree, as from its being a sacred tree with the Hindoos, from its vast size and from the singularity of its growth. The fruit is not larger than a hazel nut, but the lateral branches send down shoots which take root, till in the course of time, a single tree extends itself to a considerable grove. Among the Ancients, Strabo mentions that after the branches have extended about twelve feet horizontally, they shoot down in the direction of the earth and there root themselves; and when they have attained maturity, they propagate onward in the same manner, till the whole becomes like a tent supported by many columns. This tree is also noticed by Pliny; and Milton has rendered the description of the naturalist of Verona, almost literally in the following beautiful lines:

"Branching so broad along that in the ground
The bending twigs take root; and daughters grow
About the mother tree; a pillared shade,
High overarched, with echoing walks between.
There oft the Indian herdsman, shunning heat,
Sheltering cool; and tends his pasturing herds
At loop holes cut through thickest shade."

Some specimens of the Indian fig tree are mentioned as being of immense magnitude. One near Mangee, in Bengal spread over a diameter of 370 feet. The entire circumference of the shadow at noon was 1116 feet, and it required 920 feet to surround the stems by which the tree was supported. Another covered an area of 1700 square yards; and many of nearly equal dimensions are found in India and Cochin China. But the largest of which we have ever heard, is on an island in the river Nerbedda, and is distinguished in honour of a Bramin of high reputation, by the name Cubbeer Buv. High floods have destroyed many of its incurved stems, yet those remaining measure two thousand feet in circumference; the number of its larger trunks, each exceeding the bulk of our noblest oaks, amounts to three

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hundred and fifty, while that of its smaller is more than three thousand; so that seven thousand persons may find ample room to repose under its enormous shade, and may at the same time be richly supplied, from the vast abundance of fruit which it yields. Mr. Southey gives a beautiful and accurate description of one of these sacred trees, in his "Curse of Kehama," and concludes it thus:

"Nor weeds nor briers deformed the natural floo
And through the leafy cope which bowered it o'er
Came gleams of chequered light.
So like a temple did it seem that there
A pious heart's first impulse would be prayer."

HOME.

How many and how fond are the recollections which this one word is often wont to awaken. True it is—most true, that

"There's no place like home,"

Home—the dwelling-place of affection, where in the sunny smiles, in the bright beamings of a pure friendship there is no treachery, no falsehood, where in every appearance there is reality—where every look and word and action is a true index of the heart. *Home*—the place where our sorrows and our joys may be spoken of without fear and without reserve—where a cold-hearted and unsympathising feeling is unknown—where the flame of a pure and ardent affection, like the holy fire at the altar-place of ancient Judea, burns on by night and by day undim'd and unextinguished, the place to which sometimes when we are far away, the thoughts and feelings of the heart will return and there linger, refusing for a season to be called elsewhere. O how inviting is home, with all its endearments, with all the loveliness and quietude of its seclusion—how inviting to him who hath long been abroad upon the "world's wide stage," companionless and exiled! How welcome it is to him who is way-worn and weary, amid the pilgrimage of life, to return to set him down for a little season amid the never-forgotten scenes of early years, the sequestered shades of home.—Sometimes the longing we

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have for such a pilgrimage, and for such a retreat, is most intense. We can then scarcely be denied the enjoyment, mournful though it *may* be, yet not the less valued, of retreating from the toils and perplexities of life, to linger a little, in that place where is all the quietness, and where are all the unchanging endearments of home. And for one we know of no time when this feeling of which we have been speaking—this desire to sit us down again beneath the paternal roof comes over the spirit with more potency than at the season of Autumn.

In certain individual cases there may be a very obvious reason for the existence of this feeling, at this season. Its return may awaken such remembrances, as will bid every thought and every tender emotion of the mind to dwell for the time, nowhere but at home—where perchance at this time of the year some trace in one's history was so deeply, perhaps painfully drawn, as to remain there unerased till the hour of death—where the sere leaf of autumn fell upon the new made grave—of friendship—of perished hope.—If events of this kind were witnessed at this season, it is not strange that the return thereof should awaken the feeling which we have mentioned, in all its intensity. But as a general thing is not the desire to visit and enjoy the scenes of home, stronger, at this season than at any other. And *why* is it so? on this question there might be some interesting and perhaps not unprofitable speculation—but we have not now the time for it—one thing is true, it is now a season of pensiveness, a time when the buoyancy of the most gay cannot but be in some measure checked by the sombre outspread of autumnal scenery—by the withering of every thing around us, by the solemn preparation which all nature seems now to be making to lay herself down beneath the death-shroud of coming winter. Now while this is the case, while there is thrown over the face of all things around us the aspect of sickliness and decay, we know that the same is the case a few hundred miles from us. The field, the wildwood, the garden and the grove, where we mused or where we sported when life was young, and which are endeared to us by all the fond recollections of early years, are now mantled over with the yellow of autumn.

Now may not this be a reason why in the autumnal

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season home is so much thought of and longed for. Its scenery we love, and when we know that the hand of decay is upon it, that the bloom and the beauty of our own native bowers are fading away, that the leaves thereof are falling down and the flowers thereof are withering, then our sympathies are awakened, a pensiveness immingles itself with the thought of all that is faded and fallen on the landscape at home, upon which our young eyes once beamed with gladness; and we desire to go there, just as we would to go and visit a long-loved friend whom we might hear to be under the unchecked influence of disease, declining rapidly to the grave. To go and visit that friend would allay a feverish anxiousness of mind, and gratify a strong feeling of sympathy—so also it is in visiting the home we love during the sombre season of autumn. We long to go and muse with a sadness that gratifies, and with a sympathy that relieves the spirit, over that process of decay which we know is going forward upon all we love at HOME—upon all, save the undecaying AFFECTION which is there, and which no autumn chills, no winter storms can wither or waste.

BIOGRAPHICAL SKETCHES.

SIR WILLIAM HERSCHEL.

This eminent astronomer was born at Hanover on the 14th of April, 1738, and was the second of four sons. At the age of 14 he was placed in the band of the Hanoverian regiment of guards. About the year 1758, he proceeded with a detachment of his regiment to England. While here, it was young Herschel's good luck to gain the notice of the Earl of Darlington, who engaged him to superintend and instruct a military band then forming for the militia of the county of Durham, and towards the close of the year 1765, he was appointed to the situation of organist at Halifax.

In the year 1766, the late Mr. Linley engaged him and his elder brother for the pumproom band at Bath. He was a distinguished performer on the oboe and his brother on the violincello. He was not long in the city

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before he was appointed organist to the Octagon Chapel: on attaining this distinguished situation he resigned that of Halifax; but this accession of business only increased his propensity to study, and frequently after a fatiguing day of fourteen or sixteen hours, occupied in his professional avocations, he would seek relaxation, if such it might be called, in extending his knowledge of the mathematics.

Having in the course of his extensive reading, made some discoveries which awakened his curiosity, he applied himself to the study of astronomy. Finding himself becoming hourly more attached to that pleasing study, he lessened his professional engagements, as also the number of his pupils. Towards the latter end of the year 1779. he commenced a regular review of the heavens, star by star; and in the course of eighteen months' observations, he fortunately remarked that a star which had been recorded by Bode as a fixed star, was progressively changing its position, and, after much attention to it he was enabled to ascertain that it was an undiscovered planet. He communicated the particulars to the Royal Society, who elected him a fellow and decreed him their annual gold medal. This great and important discovery he made on the 13th of March, 1781, and bestowed on the planet the name of *Georgium Sidus*, in compliment to our late King, George the Third.

Herschel, from the splendid result of his labors, not only established his fame in the scientific world, but was enabled, by the donation of a handsome salary from his late Majesty, to relinquish his professional labors, and devote the remainder of his life wholly to astronomy.

In consequence of this munificent act of the king, which must ever be mentioned to his honor as a patron of science, he quitted Bath, and fixed his residence first at Datchet, and afterwards at Slough, near Windsor

In 1783, he announced the discovery of a volcanic mountain in the moon; and four years afterwards communicated an account of two other volcanoes in that orb, which appeared to be in a state of eruption.

In 1802, Dr. Herschel laid before the Royal Society a catalogue of five thousand new nebulae, and nebulous stars, planetary nebulae, clusters of stars, which he had

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discovered. By these and other scientific labors he established his title to rank amongst the most eminent astronomers of the age, and to be placed in the roll of those whom this country produced, only second to the immortal Newton.

Dr. Herschel married Mary the widow of John Pitt. Esq.; by whom he had one son, who was some time since a member of the university of Cambridge.

Sir William did not diminish his astronomical observations until within a few years of his death, which took place on the 22d of August, 1822, at the age of 82. He expired in the fulness of years, honored with the applause of the world, and, what was far dearer to him, the veneration of his family, and the esteem and love of all who knew him. On the 7th September, his remains were interred in the church of Upton Berks, in which parish he had for many years resided.

CABINET OF NATURE.

MOUNT HECLA, IN ICELAND.

With an Engraving.

Still pressing on beneath Tornea's lake,
And Hecla flaming through a waste of snow,
And farthest Greenland to the Pole itself,
Where falling gradual, life at length goes out,
The Muse expands her solitary flight;
And hov'ring o'er the wide stupendous scene,
Beholds new scenes beneath another sky.
Throned in his palace of cerulean ice,
Here winter holds his unrejoicing court,
And through his airy hall the loud misrule
Of driving tempests is forever heard;
Here the grim tyrant meditates his wrath;
Here arms his winds with all subduing frost,
Moulds his fierce hail, and treasures up his snows.

On proceeding along the southern coast of Iceland, and at an inconsiderable distance from Skaalholt, this mountain, with its three summits, presents itself to the view. Its height is five thousand feet, or nearly a mile above the level of the sea. It is not a promontory, but lies about four miles inland. It is neither so elevated nor so picturesque as several of the surrounding Ice-

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landic mountains; but has been more noticed than many other volcanoes of an equal extent, partly through the frequency of its eruptions, and partly from its situation, which exposes it to the view of many ships sailing to Greenland and North America. The surrounding territory has been so devastated by these eruptions, that it has been deserted.

> Vast regions dreary, bleak, and bare!
> There on an icy mountain's height,
> Seen only by the Moon's pale light,
> Stern Winter rears his giant form,
> His robe a mist, his life a storm:
> His frown the shiv'ring nations fly,
> And, hid for half the year, in smoky caverns lie.

The natives asserted that it was impossible to ascend the mountain, on account of the great number of dangerous bogs, which according to them, are constantly emitting sulphureous flames, and exhaling smoke; while the more elevated summit in the centre is covered with boiling springs and large craters, which continually propel fire and smoke. To the south and west the environs present the most aflicting results of frequent eruptions, the finest part of the territory being covered with torrents of melted stone, sand, ashes, and other volcanic matter, notwithstanding which, between the sinuosities of the lava in different parts, some portion of meadows, walls, and broken hedges may be observed. The devastation is still greatef on the north and east sides, which present dreadful traces of the ruin of the country and its habitations. Neither plants nor grass are to be met with to the extent of two leagues round the mountain, in consequence of the soil being covered with stones and lava; and in some parts, where the subterraneous fire has broken out a second time, or where the matter which was not entirely consumed has again become ignited, the fire has contributed to form small red and black hillocks and eminences, from scoriæ, pumice-stones, and ashes. The nearer the mountain the larger are these hillocks, and there are some of them, the summits of which form a circular hollow, whence the subterraneous fire ejects the matter. On approaching Hecla the ground becomes almost impassable, particularly near the

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higher branches of lava thrown from the volcano. Round the latter is a mountain of lava, consisting of large fused stones, from forty to seventy feet high, and in the form of a rampart or wall. These stones are detached, and chiefly covered with moss; while between them are very deep holes, so that the ascent on the western side requires great circumspection. The rocks are completely reduced to pumice, dispersed in thin horizontal layers, and fractured in every direction, from which some idea may be formed of the intensity of the fire that has acted on them.

> There Winter, armed with terrors here unknown,
> Sits absolute on his unshaken throne;
> Piles up his stores amidst the frozen waste,
> And bids the mountains he has built stand fast,
> Beckons the legions of his storms away
> From happier scenes to make the land a prey:
> Proclaims the soil a conquest he has won,
> And scorns to share it with the distant sun.

Sir Joseph Banks, Dr. Solander, Dr. James Lind, of Edinburgh, and Dr. Van Troil, a Swede, were the earliest adventurous travellers who ascended to the summit of Mount Hecla. This was in 1772; and the attempt was facilitated by a preceding eruption in 1766, which had greatly diminished the steepness and difficulty of the ascent. On their first landing, they found a tract of land sixty or seventy miles in extent, entirely ruined by lava, which appeared to have been in a state of complete liquefaction. To accomplish their undertaking, they had to travel from three hundred to three hundred and sixty miles over uninterrupted tracts of lava. In ascending, they were obliged to quit their horses at the first opening from which the fire had burst:—a spot, which they describe as presenting lofty glazed walls and high glazed cliffs, differing from any thing they had ever seen before. At another opening above, they fancied they discerned the effects of boiling water; and not far from thence, the mountain, with the exception of some bare spots, was covered with snow. This difference of aspect they soon perceived to be occasioned by the hot vapor ascending from the mountain. The higher they proceeded, the larger these spots became; and, about

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two hundred yards below the summit, a hole about a yard and a half in diameter, was observed, whence issued so hot a stream, that they could not measure the degree of heat with a thermometer. The cold now began to be very intense. Fahrenheit's thermometer, which at the foot of the mountain was at 54, fell to 24; while the wind became so violent, that they were sometimes obliged to lie down, from the dread of being blown into the most dreadful precipices. On the summit itself they experienced at one and the same time, a high degree of heat and cold; for, in the air, Fahrenheit's thermometer constantly stood at 24, but when placed on the ground, it rose to 153.

Messrs. Olafsen and Povelsen, two naturalists, whose travels in Iceland were undertaken by order of his Danish Majesty, after a fatiguing journey up several small slopes, which occurred at intervals, and seven of which they had to pass, at length reached the summit of Mount Hecla at midnight. It was as light as at noon day, so that they had a view of an immense extent, but could perceive nothing but ice: neither fissures, streams of water, boiling springs, smoke, nor fire, were apparent. They surveyed the glaciers in the eastern part, and in the distance saw the high and square mountain of Hærdabreid, an ancient volcano, which appeared like a large castle.

Sir G. S. Mackenzie, in his recent travels in Iceland, ascended Mount Hecla; and from his account we extract the following interesting particulars. In proceeding to the southern extremity of the mountain, he descended, by a dangerous path, into a valley, having a small lake in one corner, and the opposite extremity bounded by a perpendicular face of rock, resembling, in its broken and rugged appearance, a stream of lava. While advancing, the sun suddenly broke through the clouds, and the brilliant reflection of his beams, from different parts of the supposed lava, as if from a surface of glass, delighted our traveller by the instantaneous conviction that he had now attained one of the principal objects connected with the plan of his expedition to Iceland. He hastened to the spot, and all his wishes were fully accomplished in the examination of an object which greatly exceeded the expectations which he had formed.

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On ascending one of the abrupt pinnacles, which rose out of this extraordinary mass of rock, he beheld a region, the desolation of which can scarcely be paralleled. Fantastic groups of hills, craters, and lava, leading the eye to distant snow-crowned jockuls, (inferior mountains,) the mist rising from a waterfall; lakes, embosomed among bare, bleak mountains; an awful profound silence; lowering clouds; marks all around of the furious action of the most destructive of elements; all combined to impress the soul with sensations of dread and wonder. The longer himself and his companions contemplated this scene, the more unable they were to turn their eyes from it; and a considerable time elapsed before they could bring themselves to attend to the business which had tempted them to enter so frightful a district of the country.

Having proceeded a considerable distance along the edge of a stream of lava, a narrow part of which they crossed, they gained the foot of the south-end of Mount Hecla. While, in ascending, they had to pass over rugged lava, they experienced no great difficulty in advancing; but when they reached the steepest part of the mountain, which was covered with loose slags, they sometimes lost at one step by the yielding of these, a space which had been gained by several.

Having passed a number of fissures, by leaping across some, and stepping along masses of slags which lay over others, they at length reached the summit of the first peak. The clouds now became so thick, that they began to despair of being able to proceed any further: it was, indeed, dangerous even to move; for the peak consists of a very narrow ridge of slags, not more than two feet broad, having a precipice on each side, several hundred feet in depth. One of these precipices forms the side of a vast hollow, which seems to have been one of the craters. At length the sky cleared a little, and enabled them to discover a ridge below, which seemed to connect the peak they had ascended with the middle or principal one.—They lost no time in availing themselves of this opportunity, and, by balancing themselves like rope-dancers, succeeded in passing along a ridge of slags, so narrow that there was scarcely room for their feet. After a short, but very steep, ascent, they

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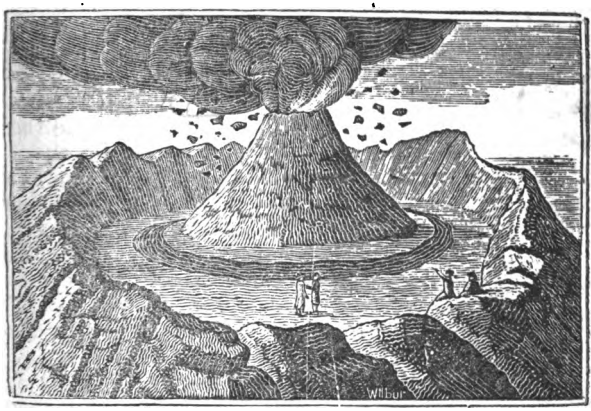
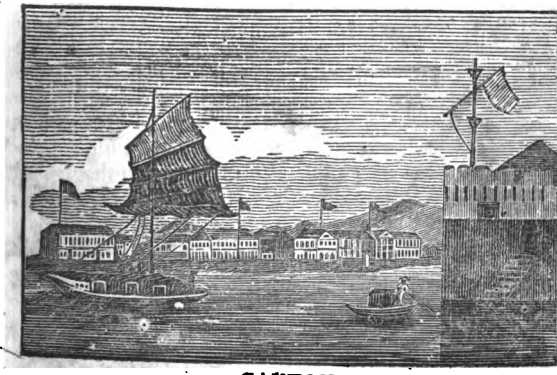


MOUNT HECLA.



CANTON.

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gained the highest part of this celebrated mountain

Its earliest eruption is said to have happened in 1004, since which time upwards of twenty have occurred. That of 1693 was the most dreadful, and occasioned terrible devastations the ashes having been thrown over the island in every direction, to the distance of more than one hundred miles. In 1728, a fire broke out among the surrounding lava; and also in that to the west of the volcano, in 1754, which lasted for three days. There has not been any eruption of lava since 1766; but for some years after flames issued from the volcano.

TOPOGRAPHICAL SKETCHES, NO. VIII.

CANTON.

With an Engraving.—See page. 267.

THE city of Canton is situate upon the east side of the large river Ta, from the mouth of which it lies about fifty miles. It is defended towards the water by two high walls, and two strong water castles, built in the middle of the river Ta.

Canton is the greatest port in China, and the only one frequented by foreigners. The city wall is about five miles in circumference, with pleasant walks around it. On the east side is a large ditch close to the wall.

From the tops of some adjacent hills, on which forts are built, you have a fine prospect of the surrounding country. It is beautifully interspersed with mountains, little hills, and valleys, all green; and these again pleasantly diversified with small towns, villages, high towers, temples, the seats of Mandarins and other great men, which are watered with delightful lakes, canals, and small branches of the river Ta, on which are numberless boats and junks sailing different ways through the most fertile places of the country.

The city is entered by seven iron gates, and within side of each there is a guard-house. No foreigner is allowed to enter these if known; I have myself been frequently expelled, after I had been a good way within the city, when they discovered that I was a stranger,

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The soldiers, who keep guard, are armed with spears, darts, swords, match-lock guns, but most of them with bows and arrows, which they still esteem more than any other warlike weapon. The streets are very straight, but generally narrow, and paved with flag stones. There are many pretty buildings in the city, great numbers of triumphal arches, and temples well stocked with images. The streets of Canton are so crowded, that it is difficult to walk in them; yet you will seldom see a woman of any fashion, unless by chance, when coming out of their chairs. And, were it not that curiosity in the Chinese ladies make them sometimes peep at us, we should never get a glance at them.

Though there are no magnificent houses in Canton, most of them being built only one, and none more than two stories, yet they take up a great extent of ground, many of them having square courts within their walls.

They have all such a regard to privacy, that no windows are made towards the streets, but in shops and places of public business. None of their windows look towards those of their neighbors. Within the gate or entry of each house, a screen is placed, to prevent strangers from looking in upon the opening of the gate; and you enter the house either on the right or left side of the middle screen, where there are little alleys to the right and left, from whence you pass into the several courts, which are walled on all sides.

Their entertainments are held in a sort of hall at the entrance of their houses, which have no other ornament, beisdes a single order of painted columns, which support the building. The roofs are open to the tiles, without any ceiling. In these they use no looking-glasses, hangings, or fine chairs; and their beds which are the principal ornaments of their houses, are seldom seen by strangers, who are not permitted to go farther than the first great hall. The Chinese, who keep shops, were less reserved, and would frequently invite us to their houses with great freedom, as they observed it would be agreeable to us.

The furniture of the best houses is cabinets, tables, painted screens, china, pictures, and pieces of white taffety upon the walls, upon which are written in Chinese characters, religious and moral sentences. They have

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no chimneys; but in their stead, they place a shallow iron pot, filled with charcoal, in the middle of the room in winter, which is ready to suffocate people who are not accustomed to it. They have a copper built in brick-work in their kitchen for boiling, much about the height of an English stove. The inside of their houses are never wainscoted nor painted, but are covered with thin paper. The windows are made of cane or rattan. In winter they cut oyster-shells into diamond shapes, and set them in wooden frames, which afford them a very dull light.

It is reckoned, that there are in the city and suburbs of Canton 1,200,000 people; and you will scarce find a day in the whole year, but there are 5000 trading vessels lying before the city.

The temples and places of public worship are the most magnificent buildings in Canton. They are well filled with images. The people pay profound adoration to them, by falling down on their knees before them, wringing their hands, and beating their foreheads against the ground. These temples are decorated with a great number of artificial flowers, embroidered hangings, curtains, and fringes. One of them, situated in the skirt of the north-east side of the suburbs, makes a splendid appearance. It is four stories high, has a fine cupola, with many houses and galleries. The lower part of it is built with fine hewen stone, but the upper part is all of timber. We went first into the lower hall, where we saw images of all sizes, of different dignities, and finely gilded, and kept exceedingly clean by the priests. The lesser images were placed in corners of the wall, and one of a larger size in the middle of the hall. This large god, who is placed in the centre, sits in a lazy posture, almost naked, and leaning on a large cushion. He is ten times larger than an ordinary man, very corpulent, of a merry countenance, and gilt all over. We were next conducted up stairs, where we saw a great many images of men and women, who had been deified for their brave and virtuous actions.

Though Canton is but twenty-four degrees from the equator, and is scorching hot in summer, yet, about the months of December and January, it is subject to high winds, and very heavy rains. The sudden alteration

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which the climate undergoes, is very surprising. At this time, the people of China take to their winter dress, which is lined with furs, or quilted cotton. Instead of wearing fans, which are used by men, women, and children, in hot weather, they hold a live quail in their hands to keep them warm, and have the long sleeves of their gowns drawn down, to cover their hands. Thus equipped, they walk so stiff, and shrug up their shoulders so much, that one would think that they were freezing to death.

The river Ta, at Canton, is somewhat broader than the Thames at London. But the crowds of small vessels that ply the Ta, are vastly more numerous. For the space of four or five miles, opposite the city of Canton, you have an extensive wooden town of large vessels and boats, stowed so closely, that there is scarcely room for a large boat to pass. They are generally drawn up in ranks, with a narrow passage left for vessels to pass and repass. Some of them are large vessels of eight or nine tons burden, called jonks, with which they perform their foreign voyages. Here are also an incredible number of small boats, in which poor families live all their life long, without ever putting a foot on shore. In these they keep dogs, cats, hogs, geese, and other domestic animals, both for subsistence and sale. There is nothing similar to this in Europe; for the people in this country are so exceedingly numerous, that vast numbers of families are obliged to betake themselves to boats on the river, for want of room, or the means of subsistence on land, where almost every inhabitable spot is occupied; these boats are very conveniently built, with arched covers and tilts, made of solid wood, or bamboo or cajan leaves, so high that the people can walk upright under them.

If we are willing to perform our duty, God is ready to assist us; if we are truly sincere, he is willing to accept us.

Frequently review your conduct and not your failings.

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THE PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES:

ILLUSTRATED BY ANECDOTES.

Self-educated men.—Rennie; Linnæus; Vernet; Caravaggio; Chatterton; Harrison; Edwards; Villars; Jourdan; Baudinelli; Palissy.—Influence of accident in directing pursuit.

(*Concluded from page* 56.)

The late eminent engineer, John Rennie, used to trace his first notions in regard to the powers of machinery, to his having been obliged, when a boy, in consequence of the breaking down of a bridge, to go one winter every morning to school by a circuitous road, which carried him past a place where a thrashing machine was generally at work. Perhaps, had it not been for this casualty, he might have adopted another profession than the one in which he so much distinguished himself. It was the appearance of the celebrated comet of 1744 which first attracted the imagination of Lalande, then a boy of twelve years of age, to astronomy. The great Linnæus was probably made a botanist, by the circumstance of his father having a few rather uncommon plants in his garden. Harrison is said to have been originally inspired with the idea of devoting himself to the constructing of marine time-pieces, by his residence in view of the sea. It was a voyage in the Mediterranean which first gave to Vernet his enthusiasm for marine painting. Other great painters have probably been indebted to still slighter circumstances, for their first introduction to the art. Claude Lorraine derived his taste for design from frequenting the workshop of his brother, who was a wood engraver. The elder Caravaggio, Polidoro Caldara, was born of poor parents, at the town in the north of Italy from which he takes his common designation; and having when a young man, wandered as far as Rome in search of work, was at last engaged to carry mortar for the fresco painters, who were then employed in decorating the Vatican, which humble occupation giving him the opportunity of observing the operations of these artists, first inspired him with the ambition of becoming himself a painter. The commencement of the history of Michael Angelo Caravaggio is not very differnt. He, as his name denotes, was a native of the

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same place as Polidoro, though he flourished more than half a century later, and he is recorded to have had his love of the art first awakened by being, when a boy, employed by his father, who was a mason, to mix plaster for some fresco painters at Milan. Another Italian painter, Cavedone, owed his introduction to his profession to the accident of having been received, after he had been turned out of doors by his father, into the service of a gentleman who happened to possess a good collection of pictures, which he began by copying in ink with a pen.

The youthful Chatterton's taste for the study of English antiquities is said to have been first excited by the accidental circumstance of a quantity of ancient parchment manuscripts having fallen into his hands, which had been taken by his father, who kept a school, from and old chest in the church of St. Mary Redcliffe, at Bristol, to make covers for the writing-books used by his scholars. If he had never seen these parchments, how different might have been the history of that gifted but ill-fated boy! George Edwards, the naturalist, and author of the splendid book entitled the "History of Birds," was in the first instance apprenticed to a London merchant; but the accident of a bed-room being assigned to him which contained a collection of books that had been left by a former lodger of his master's, gradually formed in him so strong an attachment to study, and especially to natural history, to which many of the volumes related (their original possessor having been a medical gentleman,) that he resolved to give up commerce, and to dedicate his life to literature and science. The late eminent French botanist, Villars, in like manner, after having set out in life as a farmer, suddenly became enamoured of natural science, from looking into an old work on medicine which he chanced to find at a house where he was staying.

The late French orientalist, Jourdain, was originally intended for the law, and had been placed with a notary, when, in the year 1805, the admiration he heard bestowed upon Anquetil Du Perron, then newly dead, who had in his youth enlisted as a private soldier in a corps going to India, in order that he might enjoy an opportunity of studying the eastern languages, kindled

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in him an irresistible passion to devote himself to similar pursuits. Jourdain was at this time only seventeen years of age, and died when just thirty. Yet in that short interval he had acquired a distinguished name as an oriental scholar, and had given to the world a variety of able works; among which may be especially mentioned a very learned statistical account of Persia, in five volumes, which appeared when the author was only in his twenty-sixth year.

We will mention only a few other instances of the manner in which accidental, and apparently trival, occurrences have sometimes operated in exciting latent genius. The Italian sculptor BANDINELLI, is said to have been first led to turn his thoughts to the art of statuary, by a great fall of snow, which happened when he was a boy at his native city of Florence. He fashioned a statue of the snow, which was conceived to give a striking indication of his talent for modelling. The late Mr. Lowery, was induced to embrace the profession in which he afterwards acquired so much celebrity, by the accidental inspection, when he was about fifteen years of age, of a portfolio of prints of Woollet, another of our eminent engravers. Thus, too, the famous German printer, BREITKOPF, the inventor of moveable types for printing music, and of many other improvements in typography and letter-founding, was first inspired with a liking for his profession, which he had originally embraced on compulsion, by falling in with a work of Albert Durer, in which the shapes of the letters are deduced from mathematical principles.

The celebrated Bernard Palissy, to whom France was indebted, in the sixteenth century, for the introduction of the manufacture of enamelled pottery, had his attention first attracted to the art, his improvements in which form to this time the glory of his name among his countrymen, by having one day seen by chance a beautiful enamelled cup, which had been brought from Italy. He was then struggling to support his family by his attempts in the art of painting, in which he was self-taught; and it immediately occurred to him that, if he could discover the secret of making these cups, his toils and difficulties would be at an end. From that moment his whole thoughts were directed to this object; and in

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one of his works he has himself given us such an account of the unconquerable zeal with which he prosecuted his experiments, as it is impossible to read without the deepest interest. For some time he had little or nothing to expend upon the pursuit which he had so much at heart; but at last he happened to receive a considerable sum of money for a work which he had finished, and this enabled him to commence his researches. He spent the whole of his money, however, without meeting with any success, and he was now poorer than ever. Yet it was in vain that his wife and his friends besought him to relinquish what they deemed his chimerical and ruinous project. He borrowed more money, with which he repeated his experiments; and, when he had no more fuel wherewith to feed his furnaces, he cut down his chairs and tables for that purpose. Still his success was inconsiderable. He was now actually obliged to give a person, who had assisted him, part of his clothes by way of remuneration, having nothing else left; and, with his wife and children starving before his eyes, and by their appearance silently reproaching him as the cause of their sufferings, he was at heart miserable enough. But he neither despaired, nor suffered his friends to know what he felt; preserving, in the midst of all his misery, a gay demeanor, and losing no opportunity of renewing his pursuit of the object which he all the while felt confident he should one day accomplish. And at last, after sixteen years of persevering exertion, his efforts were crowned with complete success, and his fortune was made. Palissy was, in all respects, one of the most extraoadinary men of his time; in his moral character displaying a high mindedness and commanding energy altogether in harmony with the reach and originality of conception by which his understanding was distinguished. Although a Protestant, he had escaped, through the royal favor, from the massacre of St. Bartholomew; but, having been soon after shut up in the Bastile, he was visited in his prison by the king, who told him, that if he did not comply with the established religion, he should be forced, however unwillingly, to leave him in the hands of his enemies. "Forced!" replied Palissy. "This is not to speak like a king; but they who forced you cannot force me; I can die."

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He never regained his liberty, but ended his life in the Bastile, in the ninetieth year of his age.

DEPARTMENT OF NATURAL HISTORY.

THE CONDOR.—VULTUR GRIPUS. Lin.

The Condor, or Vulture of the Andes, holds a conspicuous rank among the tribes which, on account of their size, their extraordinary strength and ferocity, and their amazing power of flight, are placed at the head of the feathered creation. Distinguished alike by all their qualities, he is moreover remarkable for the lofty station he occupies in the most elevated eminences of our globe, in which he appears to rest in solitary majesty, like a monarch surveying his tributary possessions, or from whence he soars on "ample pinion" to the greatest distance beyond this "visible diurnal sphere." The rarified air of their elevated regions, and the silence of the lofty mountains, are peculiarly suited to his nature, yet he is sometimes compelled by hunger to descend to the plains in search of his prey, but quickly returns from these lower situations when his appetite is appeased.

It is not so much for his magnitude as the great form of his beak and talons, and the breadth of his extended wing, that the Condor is distinguished. He is often represented in the fables which are told of him by travellers, as a bird of gigantic size; and his remarkable habits, and the romantic situation he inhabits have, no doubt, deceived persons not unworthy of credit as accurate observers. Humboldt states that he has seen them in their solitary haunts perched on the top of a rock, in the neighborhood of perpetual snow, with their dark forms projected against the azure sky, and the dazzling whiteness of the surrounding snow, and the optical delusion, usual under such circumstances, would naturally create a belief of his colossal dimensions.

His usual size is about 3 feet in length, and the extent of his wings about 7 feet. His form, as he is represented in a sitting posture, is not unlike our Turkey, his neck and nead being bare of feathers, and a wattle

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CONDOR.

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under his chin. His head is surmounted with a thin cartilaginous crest, or comb, of an oblong figure, extending over the forehead, and the base of the bill. The female is without this crest. The skin on the neck is wrinkled and seamed, and the ruff or collar at the bottom of the neck, consists of soft downy feathers of a snowy-white color contrasting with the dark bluish hue of the rest of the body. The wings are as long as to reach nearly to the extremity of the tail which is short and even.

The feet are extremely robust, and the nails long and but little crooked. The whole body is a dark bluish or nearly black, excepting the middle of the wings, which is whitish or light brown. The female is said to be of superior size to the male. The young are clothed, during the first months, with a long down or bristly hairs, which covers them so thickly that they appear larger than the parent birds. According to the relation of travellers who have had the means of receiving information from the Indians who inhabit the regions where the Condor frequents, it is said to build no nest: the eggs are deposited on the naked rock entirely bare or lightly covered with straw, or the woolly leaves of the only herbaceous plant which approaches its habitation. These eggs are perfectly white, and 3 or 4 inches long. The female continues with the young brood the greater part of the year.

The history of the Condor, like that of too many of the most remarkable animals, is involved in romance; and if we were to credit some of the accounts given of him, he would be considered as scarcely inferior in size or strength to the *Roc* of the Arabian fabulists, who was capable of raising an Elephant into the air with his powerful talons. Without resorting to fable, there is sufficient in his true character to render him an object of our wonder and admiration. It has already been observed that he is able to raise himself into the regions of the air and leave behind him our planet at an inconceivable distance. On the top of the lofty Chimborazo, and all along the great chain of the Andes, he extends to the most southern extremity of the new continent, and from his great muscular strength, his power of rising, the keenness of his scent and vision, and moreover from

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his courage and audacity, he seems to possess uncontrollable power over almost all the animal race. The swiftest and strongest kinds, the Deer of the Andes, the Puma, the Vicuna, and others, are incapable of eluding his attack, and the largest cattle of the plains are equally liable to become the objects of his ferocity.

When once the Condor selects one of these as his prey, it is in vain to attempt escape. He pursues him on the wing, incessantly striking him with his powerful beak, until the miserable victim sinks from exhaustion, and is compelled to submit to his fate. The tongue is the favorite morsel which is first seized, and afterward the eyes are greedily devoured. He prefers dead carcases to the living animals, but where hunger obliges him, he pursues small birds or reptiles as well as quadrupeds. The stories related of his sometimes attacking man himself, are altogether fabulous. Humboldt, who observed many of them in their native places, states that they never appeared to show any disposition to attack him; and he never heard of any instance of their having seized upon young children, as is sometimes alleged. All the Indians, whom he interrogated on that subject, concurred in the same assertion, that the Condor was never considered as dangerous to man. He repeatedly saw young infants left asleep in the open air, while the parents went to the mountains to gather snow to sell in the towns, which would never have been so exposed if any danger could have been apprehended from the Condors.

Like many others of the rapacious birds, the Condor gorges himself with his prey, and in this condition will sit perched on the summit of a rock or other elevation, silent and immovable; and if disturbed, he may be chased on foot a considerable distance before he will take to flight. The Indians, who inhabit the districts where he is most commonly found, take advantage of this habit to capture him alive, by employing a noose at the end of a rope. For this purpose, a horse or a cow is killed and placed in some retired spot The odor very soon attracts the notice of the Condors, who can perceive or scent their prey from almost inconceivable distances—large numbers of them assemble—they devour the carcase with their usual voracity, and glut

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themselves so as to be unable to take to flight—the Indians pursue them on foot, and can easily cast a noose around their neck, as they run before them. Sometimes they make a desperate effort to rise from the ground by suddenly disgorging themselves, which is the only resource left them for esacpe. Among the stratagems which the Indians employ to take them alive, is the use of poisonous or soporific plants, which are placed in the dead carcase on which the Condors feed, and by that means they become intoxicated and are easily taken. The Condor when first captured is frightened and timid, but soon evinces his natural ferocity of temper, and is mischievous and dangerous to be approached.

It is extremely difficult to kill one of these birds, in the ordinary way, by strangulation or even by gun-shot. The feathers resist the force of a bullet, and Humboldt even states that a ball fired against the thigh of one of them was actually flattened without making the least impression.

The Condor appears to be altogether incapable of domestication, and is rarely seen in confinement in collections. An individual was not long since exhibited in this city. Another from Chili was living a few years ago in the menageri of the museum at Paris, and the figure we have given of him, was taken from that specimen.

GREAT MEN.

There are probably greater men who lie concealed among the species, than those who come out, and draw on themselves the eyes and admiration of mankind. If we suppose there are spirits or angels who look into the ways of men, how different are the notions which they entertain of us from those which we are apt to form of one another! We are dazzled with the splendor of titles; the ostentation of learning; the noise of victories. They, on the contrary, see the philosopher in the cottage, who possesses his soul in patience and thankfulness, under the pressure of what little souls call poverty and distress. They do not look for great men at the

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head of armies, or among the pomp of a court; but often find them out in shades and solitudes, in the private walks and bye-paths of life. The evening walk of a wise man is more illustrious in their sight, than the march of a general, at the head of a victorious army. A contemplation of God's works; a voluntary act of justice to our own detriment; tears that are shed in silence for the miseries of others; a private desire or resentment broken or subdued: in short, an unfeigned exercise of humility, or any other virtue, are such actions as are glorious in their sight, and denominate men great and respectable. The most famous among us are often looked upon with pity, with contempt, or with indignation, while those, who are most obscure among their own species, are regarded with love, with approbation and esteem.

ILLUSTRATIONS OF ISAIAH LX. 8.

"WHO ARE THESE THAT FLY AS A CLOUD, AND AS DOVES TO THEIR WINDOWS."

The flight of doves, when returning to their cotes, is remarkably rapid; and the metaphors of this passage point out the numbers, as well as speed, of those who should be converted to Christianity by the Apostles' preaching.

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Morier, in his Travels in Persia, says, That in the neighborhood of Ispahan there are a great number of dove-cotes, built by the inhabitants, at a little distance from their houses, merely with a view to collect the dung for the manure of their lands. These are great round towers, wider at the bottom than top, with winding openings for the pigeons to enter. The inside resembles a honey-comb, by the multitude of holes that are there for placing their nests. It appears that the country people bestow more pains in ornamenting the outside of these towers than that of their own houses, for some of them are painted and beautifully embellished. The immense flights of pigeons that are seen near these dove-cotes may serve to explain that passage of Isaiah lx. 3. Their number, and the thickness of the masses, make them appear at a distance like a cloud, and sometimes they seem to darken the sun.

ANCIENT GRANDEUR OF MEDITERRANEAN AFRICA.

This region, which is now covered with darkness, and left so far behind in all the arts and attachments which exalt and adorn human nature, had at that early period, taken the lead in these very particulars of all other nations. It included Egypt and Carthage, which as the first seats of government and commerce were the admiration of the ancient world. In the patriarchal ages when Scripture history represents the Mesopotamian Plain, the scene of the future empires of Babylon and Assyria, as little more than a wide and open common, Egypt appears regularly organized, and forming a great and powerful kingdom; and when Greece was under the tumultuous sway of a multitude of petty chieftains, Homer already celebrates the hundred gates of Thebes, and the mighty hosts which, in warlike array, issued from them to battle. Egypt was illustrious, also, among the ancients as producing the first elements of learning and abstract science; the first approach to alphabetical writing by hieroglyphic emblems; the first great works in sculpture, painting, and architecture; and travellers even now find that country at an era when the faintest

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dawn of science had not yet illuminated the regions of Europe. While Egypt was thus pre-eminent in science and art, Carthage equally excelled in commerce and the wealth which it produced; by means of which she rose to such a degree of power, as to enable her to hold long suspended, between herself and Rome, the scale of universal empire. In that grand struggle Carthage sunk amid the blaze of expiring glory, while Egypt, after having passed through many ages of alternate splendor and slavery, was also, at length, included in the extended dominion of Rome. Yet, though all Mediterranean Africa thus merged into a province of the Roman world, it was still an opulent and enlightened one, boasting equally with others its sages, its saints, its heads, and fathers of the church, and exhibiting Alexandria and Carthage on a footing with the greatest cities of the empire.

MATERNAL AFFECTION.

EXTRACT FROM A FUNERAL SERMON.

What other friend has watched like her, over the helpless and uneasy hours of sickness—borne with its petulance—ministered to its infirmities—soothed its infirmities—soothed its pains—and smoothed its feverish pillow? Where are the friends of our prosperity when "the evil days come, and the years draw nigh, in which we must say—we have no pleasure in them?" When the clouds of misfortune descend, and poverty and want overtake us—when the heart is sick with the unfulfilment of hope, and the spirit droops over its blasted expectations—when the cup of life is empoisoned by mischance or guile—when the storm hath no rainbow, and the midnight hath no star—where then are the flatterers of our cloudless skies and our sunbright hours? When the schemes of earthly ambition fail, and the hiss of the multitude follows our downfall—whither have they departed? Where is the shadow that attended us, when the sun has veiled his beams? Where are the summer-birds, when the voice of winter sighs in the

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leafless forests?—Alas! it is but interest—or convenience—or habit—or fashion—that preserves the friendship of mankind. Where are the friends of this world, when the mouth of calumny has breathed mildew and pestilence over the promise of our growing reputation: Where are they, when the taint of worldly dishonor has fallen on our heads, and shame, whether deserved or not, has pointed us out for scorn and mockery?—They have gone to worship the rising sun; and left perhaps their former benefactor to pine in gloomy solitude over their ingratitude, and to feel the biting memory of "benefits forgot."

"For what is friendship but a name,
A charm that lulls to sleep;
A shade that follow; wealth or fame,
And leaves the wretch to weep."

But the attachment of a mother, no change of fortune—no loss of influence—not even the loss of character can destroy. As the triumph of her children is her own, so is their downfall, and their dishonor. Her heart bleeds for them instinctively; her tears flow unbidden for their sorrows. Her eye follows them while present, and her soul goes with them while absent. With patience that never tires, and self-denial that never ceases, she cheerfully sacrifices for them her own comforts and pleasures. Her sympathy is felt—not obtruded; her consolation is never officious, and always soothing to the spirit; her friendship is unalterable in life, and strong in death—and she breathes her last sigh in a prayer for the welfare of her children.

Remembrance hovers over every incident, in those calm and blissful days, when her presence gave life its charm:—That affection which turned aside the arrows of misfortune—that gentleness which alleviated the pangs of distress—that tenderness which smoothed the pillow of sickness—that hand which held the aching head of pain—that piety and that sanctity which kindled in our heart the pure flame of devotion—those smiles which beamed upon us, and ever the brightest when the world was frowning—and that unalterable love which supported us amidst its unkindness and ingratitude—can these ever be forgotten?—Can we call to

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mind without deep emotion the scenes of the death-chamber?—the beloved face fast fading at the touch of dissolution—and the fond farewell—the fervent prayer for us which ceased but with parting life?—Callous and hardened must be the heart of that child, who can behold without powerful emotion the memorials of a deceased parent. No!—the heart must swell, and the eye must weep, when we visit that closet where we conversed with God together, and find it in the abode of solitude and desolation of heart—when we look on the days that are to come, and behold the dark current of existence strewed with the wreck of our broken hopes and ruined schemes; and feel that we must travel in loneliness along the pathway of being, bereft of those who, by sharing, heightened our pleasures—and who, by dividing, alleviated our sorrows.

MUSIC.

Our amusements, the employments with which we occupy our leisure hours, have much to do with the formation of our characters. The man who seeks pleasure in boisterous mirth and midnight revelry, rarely proves a kind husband or a tender father; and the boy who delights to exercise wanton cruelty on the humblest insect, is rarely an agreeable playmate or a dutiful son;—whilst he whose recreations are of a sober and rational character, is most commonly a pleasant companion and a peaceable neighbor.

To the young, and to all engaged in their education, or interested in their well-being, this is a subject of much interest, and no efforts ought to be spared to give a right direction to the love of pleasure so strong in youth. Hence arises the usefulness of infusing early into the youthful mind a taste for intellectual pleasure; and inspiring love for the fine arts before a thirst is contracted for more dangerous amusements; of these none is more laudable or more improving than a knowledge and love of music; no one interferes less with other studies or other employments—the amount of time necessary for the attainment of a tolerable proficiency is not great, and the expense is inconsiderable.

But Music is not to be regarded merely as an amuse-

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ment, nor are its advantages confined to the young. Who, "that hath music in his soul," has not felt his troubled spirit calmed, his heart softened and his love warmed, when engaged in the calm and sweet evening hymn:

> "Let not the spirits of the air,
> While I repose, my soul ensnare;
> But guard thy suppliant, free from harms,
> Safe in thine everlasting arms."

Who has not been awe-struck at hearing—"Hallelujah! for the Lord God Omnipotent reigneth!"—burst forth from a full choir!

The lovers of well-ordered public worship have ever regarded Sacred Music as one of the most important parts. Let the preacher be warm and eloquent, and his performances of the first order—if the psalmody be unsuitable to his subject, or badly performed, the exercises are incomplete, and fatigue and listlessness frequently take the place which should be occupied by attention. But suitable words and music, performed with the spirit and understanding, afford powerful aid to the instructions of the pulpit, and create feelings of devotion, the most pleasant and profitable.

POETRY.

THE DYING GIRL'S LAMENT.

BY MRS. C. GORE.

Why does my mother steal away
To hide her struggling tears?
Her trembling touch betrays uncheck'd
The secret of her fears;
My fathers gaze on my face
With yearning, earnest eye;—
And yet, there's none among them all,
To tell me I must die!

My little sisters press around
My sleepless couch, and bring
With eager hands, their garden gift,
The first sweet buds of spring!

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I wish they'd lay me where those flowers
Might lure them to my bed,
When other springs and summers, bloom
And I am with the dead.

The sunshine quivers on my cheek,
Glitt'ring, and gay, and fair,
As if it knew my hand too weak
To shade me from its glare!
How soon 'twill fall unheeded on
This death-dewed glassy eye!
Why do they fear to till me so?
I know that I must die!

The Summer winds breathe softly through
My lone, still, dreary room,
A lonelier and a stiller one
Awaits me in the tomb!
But no soft breeze will whisper there,
No mother hold my head!
It is a fearful thing to be
A dweller with the dead!

Eve after eve, the sun prolongs
His hour of parting light,
And seems to make my farewell hours
Too fair, too heavenly bright!
I know the loveliness of earth,
I love the evening sky,
And yet I should not murmur, if
They told me I must die.

My playmates turn aside their heads
When parting with me now,
The nurse that tended me a babe,
Now sooths my aching brow.
Ah! why are these sweet cradle-hours
Of joy and fondling fled?
Not e'en my parents' kisses now,
Could keep me from the dead!

Our Pastor kneels beside me oft,
And talks to me of Heaven;
But with a holier vision still,
My soul in dreams hath striven:
I've seen a beckoning hand that call'd
My faltering steps on high;
I've heard a voice, that trumpet-tongued,
Bade me prepare to die!

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THE VOICE OF THE WIND.

"There is nothing in the wide world so like the voice of a spirit.—*Gray's Letters.*

Oh! many a voice is thine, thou Wind! full many a voice is thine,
From every scene thy wing o'ersweeps, thou bear'st a sound and sigh.
A minstrel wild, and strong thou art, with a mastery all thine own;
And the spirit is thy harp, O Wind! that gives the answering tone.

Thou hast been across red fields of war, where shiver'd helmets lie,
And thou bringest thence the thrilling note of a Clarion in the sky:
A rustling of proud banner-folds, a peal of stormy drums—
All these are in thy music met, as when a leader comes.

Thou hast been o'er solitary seas, and from their waste brought back
Each noise of waters that awoke in the mystery of thy track;
The chime of low, soft, southern waves on some green, palmy shore,
The hollow roll of distant surge, the gather'd billow's roar.

Thou art come from forests dark and deep, thou mighty rushing Wind!
And thou bearest all their unisons in one full swell combined:
The restless pines, the moaning stream, all hidden things and free
Of the dim, old, sounding wilderness, have lent their soul to thee.

Thou art come from cities lighted up for the conqueror passing by,
Thou art wafting from their streets a sound of haughty revelry;
The rolling of triumphant wheels, the harpings in the hall,
The far-off shouts of multitudes, are in thy rise and fall.

Thou art come from kingly tomb and shrines from ancient minsters vast,
Through the dark aisles of a thousand years thy lonely wing hath pass'd;
Thou hast caught the Anthem's billowy swell, the stately Dirge's tone,
For a Chief with sword, and shield, and helm, to his place of slumber gone.

Thou art come from long-forsaken homes, wherein our young days flew,
Thou hast found sweet voices lingering there, the loved the kind, the true;
Thou callest back those melodies, though now all changed and fled—
Be still, be still, and haunt us not with music from the dead

Are all these notes in thee, wild Wind? these many notes in thee?
Far in our own unfathom'd souls their fount must surely be?
Yes! buried but unsleeping there, Thought watches, Memory lies,
From whose deep Urn the tones are pour'd through all earth's harmonies

F. H.

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THE VALLEY OF THE MOHAWK.

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THE

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Entertaining Knowledge.

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THE VALLEY OF THE MOHAWK.

The Mohawk, so famous in the early annals of New-York for the courage and ferocity of the savages who inhabited its banks, takes its rise in the Highlands of Black river, and, after a sinuous course of a hundred and fifty miles, separates into four branches which enter the Hudson at Waterford, Lansingburgh and Troy. The upper and lower branches are four miles distant at their mouths, and they form in their course, three small islands, one of which, Van Schaick's island, was the place where the northern army under General Schuyler, took its position in 1777, just before it advanced to meet Gen. Burgoyne.

The mouths of the River are called by the Dutch, the Spruytem or the Sprouts.

After passing the city of Utica, the course of the river is through a winding valley of exceeding beauty, varying in breath from half a mile to a mile, and about seventy miles in length. The direction of this valley is nearly from west to east; on the west it expands into the Oneida and Seneca vales, and on the east into the flat grounds about the city of Schenectady. The hills that bound it are from one to four hundred feet in height and about half a mile distant from the river. The scenery is always picturesque and beautiful; often highly romantic. The river, at one time glides smoothly and silently along, through woods that seem to spring from its very bed, and throw their many coloured branches far over its waters; at another it foams in an

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gry rapids or dashes in cataracts over the rifted rocks; and again its gently swelling banks are covered with teeming orchards or waving with golden grain, the rich rewards of the laborious husbandman. The hills too, sometimes rise in easy and gradual acclivities and are cultivated to their very summits; at others, they start up abruptly and nod beneath the burden of primeval forests.

The lands in the Valley of the Mohawk are generally very good, and the flats in particular are famed for their extraordinary fertility. This is in a great measure owing to the inundations to which, like the Nile, they are periodically subject, and which, though they occasionally do great mischief, fertilize the soil by depositing a rich alluvion far more valuable than the best artificial manure. In addition to this great source of fertility, the soil of this valley is kept constantly moist by the immense body of vapors which rising nightly from the river is condensed in the form of dew upon the land. So dense are those nightly exhalations, that the whole valley often assumes the appearance of a sea.—With a soil of inexhaustible riches the farmers of the Mohawk enjoy the farther advantage of having a market always at their door. This they find in the Erie Canal, a stupendous monument of the public spirit of New-York,—which is fast changing the character of the western region of the state, causing the forests to disappear and villages and cities to spring up in their place.—

Besides the numerous rapids in the Mohawk, there are two waterfalls of considerable celebrity; the Cohoes and Little Falls—The Cohoes Falls are situated about half a mile above the mouths of the river, near the village of Waterford; they are nine hundred feet wide and fall about eighty feet. The Erie Canal passes close by them but they cannot be seen from it owing to its depth which is twenty eight feet; the traveller however may have a splendid view of them from the towing path.

The little Falls are in the County of Herkimer, and about seventy miles west of Albany. These falls, properly speaking, consist of a series of rapids separated by stretches of deep water; each of these rapids is about a quarter of a mile in extent, and the whole descent of the water is about fifty feet in the course of a

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mile. The splendid aqueduct of the Erie Canal crosses the stretch, disparting these rapids, on a noble limestone bridge of three arches.———The scenery in the neighborhood of Little Falls is bold and beautiful, nor is the stupendous triumph of art over nature as exhibited in the constructure of the Canal at this place less admirable than the majesty of nature herself. Foaming torrents and perpendicular rocks here interposed to check the progress of the work ; but the genius of man prevailed. The rock was cut away and the torrent spanned by the graceful arch. The sudden difference of level which causes the cataract of Little Falls, is overcome by a series of locks of which there are no less than ten within a mile and a quarter of the village. At one place a vertical section of an immense rock has been made down to the requisite level, here a horizontal section meets the other at right angles, thus furnishing a bed for the Canal; and you glide along with a high rock towering above you on one side, while on the other you look down a tremendous precipice and see the Mohawk river tumbling and roaring along far beneath you.—The scenery of Little Falls is moreover interesting to the observing traveller from the evidence it affords of the wonderful changes that have taken place in the character of the surrounding country. The hills that rise on either side to the elevation of four hundred feet, have once unquestionably been united, and have been cleft to their base by the might of running waters. Through this defile the waters of a mighty lake once flowed. After the reduction of Lake Ontario, and the subsequent reduction of the Lake that overspread the Oneida vale, there must have been a Lake that spread from the Little Falls back, at least as far as Rome; this lake decreased as the rocky barrier at Little Falls gave way, and finally became dry, leaving but the trifling streams that meander through the lower parts of the vale. The action of water may be seen in the innumerable cavities worn in the rocks that compose the bottom and sides of the defile. In one of these rocks there is a water worn tunnel the top of which is nearly fifty feet above the low water mark of the river. This tunnel is about two feet in diameter and descends perpendicularly from the top of the rock to its base, near

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which it has been broken so that the sky may be seen by looking up.

Many other instances of water worn cavities might be mentioned, and many were observed in carrying the canal through a forsaken bed of the river fifteen feet above its present bed.

The Valley of the Mohawk embraces parts of the Counties of Oneida, Herkimer Mongomery and Schenectady and contains a great many flourishing towns and villages.—The Mohawk Indians were a branch of the Agoneaseah or Five Nations, and the name they gave the river was Ye-no-na-natch, or going round the mountains.—

For the Monthly Repository, and Library of Entertaining Knowledge.

TIME AND GRIEF.

Time has been called, both by philosophers and poets, *the healer of grief*, the comforter of those who mourn.—It may be so, with regard to slight sorrows,—or those that more immediately affect the passions.—But there are losses, whose extent is made more evident by the revolution of years,—in the waste of comfort,—the desolation of hope, the impossibility of restitution. To such afflictions, Time only *seems* to bring relief.—It hushes the tempest of grief,—but it reveals more perfectly the magnitude of the wreck,—the depth of a ruin which can neither be repaired or concealed.

To the sorrows of *youth*, Time may be frequently a successful physician. Then, the heart, full of strength, voluntarily co-operates with the sanitary regimen.—It readily finds,—or fancies that it finds, substitutes for the desolations made in its sanctuary.—If its tendrils are stricken from one press, they are pliant and powerful to adhere to another.—But it is not thus, in the wane of life.—The heart, often smitten, clings with a rigid tenacity to what remains.—As the circle of its joys diminish, it seems to spread itself over the whole, endeavoring like a sleepless sentinel, to touch and to guard every point.—

The affections, too, at the approach of age, seem to

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lose their power of reproduction.—They become too inert to allure new objects, and too feeble to enchain them. Like the ruminating animals, they slumber over what they once eagerly pursued.—With a hallowed jealousy, they refuse to admit new idols to the shrine, where the long-consecrated ones dwelt, and were worshipped.—With a morbid constancy they seal hermetically the vase, whence their first, purest odors, sprang forth, and were exhaled. Therefore, on the bereavements of the aged,—Time is a physician of little value: —their decayed affections have lost the pulse of earthly hope.—

But under the happiest auspices, the medicine which *Time* brings to *Grief*, must be remarked rather as a sedative, than among those mightier agents which extirpate the root of disease.—He, who seeks solace for a wounded soul,—independent of Him who hath "smitten, and can make whole," who hath fashioned and knoweth its frame,—will find that he has only stupified his senses with an opiate, and that his anguish will still awake and rankle, till in the bitterness of the bereaved Patriarch, he "go down into the grave mourning."

L. H. S.

SCENES IN PALESTINE.

Description of the Country South and East of Jerusalem.

Valley of Jordan—Mountains—Description of Lake Asphaltites—Remains of ancient cities in its basin—Quality of its waters—Hasselquist, Chateaubriand —Width of river Jordan.—

With an Engraving.—See page. 296.

On leaving the Church of the Nativity the traveller pursues his course eastward, through a vale where Abraham is said to have fed his flocks. This Pastoral tract, however, is soon succeeded by a range of hilly ground, so extremely barren that not even a root of moss is to be seen upon it. Descending the farther side of this meagre platform two lofty towers are perceived, rising from a deep valley, marking the site of the Convent of Santa Saba. Nothing can be more dreary than the situation of this religious house. It is erected in a ravine, sunk to the depth of several hundred feet, where the brook Kedron has formed a channel which is dry

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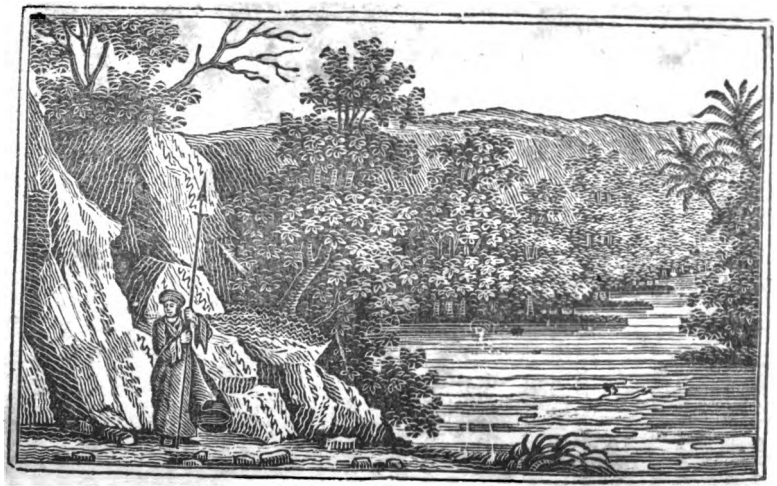

THE VALLEY OF JORDAN.

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the greater part of the year. The church is on a little eminence at the bottom of the dell; whence the buildings of the monastery rise by perpendicular flights of steps and passages hewn out of the rock, and thus ascend to the ridge of the hill, where they terminate in the two square towers already mentioned. From hence you descry the sterile summits of the mountains both towards the east and west; the course of the stream from Jerusalem; and the numerous grottos formerly occupied by Christian anchorites.

In advancing, the aspect of the country still continues the same, white and dusty, without tree, herbage, or even moss. At length the road seeks a lower level, and approaches the rocky border which bounds the Valley of the Jordan; when, after a toilsome journey of ten or twelve hours, the traveller sees stretching out before his eyes the Dead Sea and the line of the river. But the landscape, however grand, admits of no comparison to the scenery of Europe. No fields waving with corn,—no plains covered with rich pasture present themselves from the mountains of Lower Palestine. Figure to yourself two long chains of mountains, running in a parallel direction from north to south, without breaks and without undulations. The eastern or Arabian chain is the highest; and when seen at the distance of eight or ten leagues, you would take it to be a prodigious perpendicular wall, resembling Mount Jura in its form and azure color. Not one summit, not the smallest peak can be distinguished; you merely perceive slight inflections here and there, "as if the hand of the painter who drew the horizontal line along the sky had trembled in some places."

The mountains of Judea form the range on which the observer stands as he looks down on the Lake Asphaltites. Less lofty and more unequal than the eastern chain, it differs from the other in its nature also; exhibiting heaps of chalk and sand, whose form, it is said, bears some resemblance to piles of arms, waving standards, or the tents of a camp pitched on the border of a plain. The Arabian side, on the contrary, presents nothing but black precipitous rocks, which throw their lengthened shadow over the waters of the Dead Sea The smallest bird of heaven would not find among these

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crags a single blade of grass for its sustenance; every thing announces the country of a reprobate people, and well fitted to perpetuate the punishment denounced against Ammon and Moab.

The valley confined by these two chains of mountains displays a soil resembling the bottom of a sea which has long retired from its bed, a beach covered with salt, dry mud, and moving sands, furrowed, as it were, by the waves. Here and there stunted shrubs vegetate with difficulty upon this inanimate tract; their leaves are covered with salt, and their bark has a smoky smell and taste. Instead of villages you perceive the ruins of a few towers. In the middle of this valley flows a discolored river, which reluctantly throws itself into the pestilential lake by which it is ingulfed. Its course amid the sands can be distinguished only by the willows and the reeds that border it; among which the Arab lies in Ambush to attack the traveller and to murder the pilgrim.

M. Chateaubriand remarks, that when you travel in Judea the heart is at first filled with profound melancholy. But when, passing from solitude to solitude, boundless space opens before you, this feeling wears off by degrees, and you experience a secret awe, so far from depressing the soul, imparts life and elevates the genius. Extraordinary appearances every where proclaim a land teeming with miracles. The burning sun, the towering eagle, the barren fig-tree, all the poetry, all the pictures of Scripture are here. Every name commemorates a mystery,—every grotto announces a prediction, every hill re-echoes the accents of a prophet. God himself has spoken in these regions, dried up rivers, rent the rocks, and opened the grave. "The desert still appears mute with terror; and you would imagine that it had never presumed to interrupt the silence since it heard the awful voice of the Eternal.

The celebrated lake which occupies the site of Sodom and Gomorrah is called in Scripture the Dead Sea. Among the Greeks and Latins it is known by the name of Asphaltites; the Arabs denominate it Bahar Loth, or Sea of Lot. M. de Chateaubriand does not agree with those who conclude it to be the crator of a volcano; for, having seen Vesuvius, Solfatara, the Peak of the

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Azores, and the extinguished volcanoes of Auvergne, he remarked in all of them the same characters; that is to say, mountains excavated in the form of a tunnel, lava, and ashes, which exhibited incontestable proof of the agency of fire. The Salt Sea, on the contrary, is a lake of great length, curved like a bow, placed between two ranges of mountains, which have no mutual coherence of form, no similarity of composition. They do not meet at the two extremities of the lake; but while the one continues to bound the valley of Jordan, and to run northward as far as Tiberias, the other stretches away to the south till it loses itself in the sands of Yemen. There are, it is true, hot springs, quantities of bitumen, sulphur, and asphaltos; but these of themselves are not sufficient to attest the previous existence of a volcano. With respect, indeed, to the ingulfed cities, if we adopt the idea of Michaelis and of Busching, physics may be admitted to explain the catastrophe without offence to religion. According to their views, Sodom was built upon a mine of bitumen,—a fact which is ascertained by the testimony of Moses and Josephus, who speak of wells of naphtha in the Valley of Siddim. Lightning kindled the combustible mass, and the guilty cities sank in the subterraneous conflagration. Malte Brun ingeniously suggests that Sodom and Gomorrah themselves may have been built of bituminous stones, and thus have been set in flames by the fire from heaven.

According to Strabo, there were thirteen towns swallowed up in the Lake Asphaltites; Stephen of Byzantium reckons eight; the book of Genesis, while it names five as situated in the Vale of Siddim, relates the destruction of two only: four are mentioned in Deuteronomy, and five are noticed by the author of Ecclesiasticus. Several travellers, and among others Troilo and D'Arvieux, assures us, that they observed fragments of walls and palaces in the Dead Sea. Maundrell himself was not so fortunate, owing, he supposes, to the height of the water; but he relates that the father Guardian and Procurator of Jerusalem, both men of sense and probity, declared that they had once actually seen one of these ruins, that it was so near the shore, and the lake so shallow, that they, together with some Frenchmen, went to it and found there several pillars and oth-

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er fragments of buildings. The ancients speak more positively on this subject. Josephus, who employs a poetical expression, says, that he perceived on the shores of the Dead Sea the shades of the overwhelmed cities. Strabo gives a circumference of sixty stadia to the ruins of Sodom, which are also mentioned by Tacitus.

It is surprising that no pains have been taken by recent travellers to throw light upon this interesting point, or even to learn whether the periodical rise and fall of the lake affords any means for determining the accuracy of the ancient historians and geographers. Should the Turks ever give permission, and should it be found practicable, to convey a vessel from Jaffa to this inland sea, some curious discoveries would certainly be made. Is it not amazing that, notwithstanding the enterprise of modern science, the ancients were better acquainted with the properties, and even the dimensions of the Lake Asphaltites, than the most learned nations of Europe in our times? It is described by Aristotle, Strabo, Diodorus Siculus, Pliny, Tacitus, Solinus, Josephus, Galen, and Dioscorides. The Abbot of Santa Saba is the only person for many centuries who has made the tour of the Dead Sea. From his account we learn, through the medium of Father Nau, that at its extremity it is separated, as it were, into two parts, and that there is a way by which you may walk across it, being only mid-leg deep, at least in summer; that there the land rises, and bounds another small lake of a circular or rather an oval figure, surrounded with plains and hills of salt; and that the neighboring country is peopled by innumerable Arabs.

It is known that seven considerable streams fall into this basin, and hence it was long supposed that it must discharge its superfluous stores by subterranean channels into the Mediterranean or the Red Sea. This opinion is now everywhere relinquished, in consequence of the learned remarks on the effect of evaporation in a hot climate, published by Dr. Halley many years ago; the justness of which were admitted by Dr. Shaw, though he calculated that the Jordan alone threw into the lake every day more than six million tons of water. It is deserving of notice, that the Arabian philosophers if we may believe Mariti, had anticipated Halley in his

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conclusions in regard to the absorbent power of a dry atmosphere.

The marvellous properties usually assigned to the Dead Sea by the earlier travellers have vanished upon a more rigid investigation. It is now known that bodies sink or float upon it, in proportion to their specific gravity; and that, although the water is so dense as to be favorable to swimmers, no security is found against the common accident of drowning. Josephus indeed asserts that Vespasian, in order to ascertain the fact now mentioned, commanded a number of his slaves to be bound hand and foot and thrown into the deepest part of the lake; and that, so far from any of them sinking, they all maintained their place on the surface until it pleased the emperor to have them taken out. But this anecdote, although perfectly consistent with truth, does not justify all the inferences which have been drawn from it. "Being willing to make an experiment," says Maundrell, "I went into it, and found that it bore up my body in swimming with an uncommon force; but as for that relation of some authors, that men wading into it were buoyed up to the top as soon as they got as deep as the middle, I found it, upon trial not true."

The water of this sea has been frequently analized both in France and England. The specific gravity of it, according to Malte Brun, is 1,211, that of fresh water being 1,000. It is perfectly transparent. The application of tests, or reagents, prove that it contains the muriatic and sulphuric acids. There is no alumina in it, nor does it appear that it is saturated with marine salt or muriate of soda. It holds in solution the following substances, and in the proportions here stated:

Muriate of lime,	3,920
Magnesia,	10,246
Soda,	10,360
Sulphurate of lime,	054

We need not add that such a liquid must be equally salt and bitter. As might be expected, too, it is found to deposite its salts in copious incrustations, and to prove a ready agent in all processes of petrifaction. Clothes, boots, and hats, if dipped in the lake, or accidentally wetted with its water, are found, when dried,

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to be covered with a thick coating of these minerals. Hence, we cannot be surprised to hear that the Lake Asphaltites does not present any variety of fish. Maritì asserts that it produces none, and even that those which are carried into it by the rapidity of the Jordan perish almost immediately upon being immerged in its acrid waves. A few shell-snails constitute the sole tenants of its dreary shores, unmixed either with the helix or the muscle.

It was formerly believed that the approach to Asphaltites was fatal to birds, and that, like another lake of antiquity, it had the power of drawing them down from the wing into its poisonous waters. This dream, propagated by certain visionary travellers, is now completely discredited. Flocks of swallows may be seen skimming along its surface with the utmost impunity, while the absence of all other species is easily explained by a glance at the naked hills and barren plains, which supply no vegetable food.

The historian Josephus, who measured the Dead Sea, found that in length it extended about five hundred and eighty stadia, and in breadth one hundred and fifty,—according to our standard, somewhat more than seventy miles by nineteen. A recent traveller, remarks that the lake, when he visited it, was sunk or hollow, and that the banks had been recently under water, being still very miry and difficult to pass. The shores were covered with dry wood, some of it good timber, which they say is brought by the Jordan from the country of the Druses. "The water is pungently salt, like oxymuriate of soda. It is incredibly buoyant. G—— bathed in it, and when he lay still on his back or belly, he floated with one-fourth at least of his whole body above the water. He described the sensation as extraordinary, and more like lying on a feather-bed than floating on water. On the other hand, he found the greatest resistance in attempting to move through it: it smarted his eyes excessively. I put a piece of stick in; it required a good deal of pressure to make it sink, and when let go it bounded out like a blown bladder. The water was clear and of a yellowish tinge, which might be from the color of the stones at the bottom, or from the hazy atmosphere. There were green shrubs down to

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the water's edge in one place, and nothing to give an idea of any thing blasting in the neighborhood of the sea; the desert character of the soil extending far beyond the posibility of being affected by its influence."

In ascending the western shore, the traveller at length reaches the point where the Jordan mixes its dirty waters with those of the lake. Hasselquist, the only modern author who describes the mouth of that celebrated river, tells us that the plain which extends from thence to Jericho, a distance of more than three leagues, is generally speaking, level, but uncultivated and barren. The soil is a grayish sandy clay, so loose that the horses often sunk up to their knees in it. The whole surface of the earth is covered with salt in the same manner as on the banks of the Nile, and would, it is probable, prove no less fruitful were it irrigated with equal care. The stones on the beach, it is added, were all quartz, but of various colors; some specimens of which, having a slate structure, emitted, when exposed to fire, a strong smell of bitumen, thereby denoting, perhaps, its volcanic origin.

There is a great want of unanimity among authors in respect to the width of the Jordan. The Swede whom we have just quoted relates, that opposite to Jericho it was eight paces over, the banks perpendicular, six feet in height, the water deep, muddy, warm rather than cold, and much inferior in quality to that of the Nile. Chateaubriand, again, who measured it in several places, reports that it was about fifty feet in breadth, and six feet deep close to the shore,—a discrepancy which must arise from the period of the year when it was seen by these distinguished writers.

The Old Testament abounds with allusions to the swellings of Jordan; but at present, whether the current has deepened its channel, or whether the climate is less moist than in former days, this occurrence is seldom witnessed,—the river has forgotten its ancient greatness. Maundrell could discern no sign or probability of such overflowings; for although he was there on the 30th of March,—the proper season of the inundation,—the river was running two yards at least under the level of its banks. The margin of the stream, however, continues as of old to be closely covered with a natural forest of

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tamarisk, willows, oleanders, and similar trees, and to afford a retreat to several species of wild beasts. Hence the fine metaphor of the prophet Jeremiah, who assimilates an enraged enemy to a lion coming up "from the swellings of Jordan," driven from his lair by the annual flood, and compelled to seek shelter in the surrounding desert.

MOUNT VESUVIUS.—NEAR NAPLES.

See plate, page, 315.

This celebrated volcano, which has for so many ages attracted the attention of mankind, and the desolating eruptions of which have been so often and so fatally experienced, is distant, in an eastern direction, about seven miles from Naples. It rises, insulated, upon a vast and well-cultivated plain, presenting two summits on the same base, in which particular it resembles Mount Parnassus. One of these, La Somma, is generally agreed to have been the Vesuvius of Strabo and the ancients; the other, having the greatest elevation, is the mouth of the volcano, which almost constantly emits smoke. Its height above the level of the sea, is 3,900 feet, and it may be ascended by three different routes, which are all very steep and difficult, from the conical form of the mountain, and the loose ashes which slip from under the feet: still, from the base to the summit the distance is not more than three Italian miles. The circumference of the platform on the top, is 5,024 feet, or nearly a mile. Thence may be seen Portici, Capræa, Ischia, Pausilippo, and the whole coast of the gulf of Naples, bordered with orange trees.

On approaching the mountain, its aspect does not convey any impression of terror, nor is it gloomy, being cultivated for more than two-thirds of its height, and having its brown top alone barren. There all verdure ceases; yet, when it appears covered with clouds, which sometimes encompass its middle only, this circumstance rather adds to, than detracts from the magnificence of the spectacle Upon the lavas which the volcano long

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ago ejected, and which, like great furrows, extend into the plain, and to the sea, are built houses, villages, and towns. Gardens, vineyards, and cultivated fields, surround them; but a sentiment of sorrow, blended with apprehensions about the future, arises on the recollection that, beneath a soil so fruitful and so smiling, lie edifices, gardens, and whole towns swallowed up. Portici rests upon Herculaneum; its environs upon Resina; and at little distance is Pompeii, in the streets of which, after more than seventeen centuries of non-existence, the astonished traveller now walks. After a long interval of repose, in the first year of the reign of Titus, (the seventy ninth of the Christian era,) the volcano suddenly broke out, ejecting thick clouds of ashes and pumice stones, beneath which Herculaneum, Stabia, and Pompeii, were completely buried. This eruption was fatal to the elder Pliny, the historian, who fell a victim to his humanity and love of science. Even at this day, in speaking of Vesuvius, the remembrance of his untimely death excites a melancholy regret. All the coast to the east of the gulf of Naples was, on the above occasion, ravaged and destroyed, presenting nothing but a long succession of ejected matters from Herculaneum to Stabia. The destruction did not extend to the western part, but stopped at Naples, which suffered comparatively little.

Thirty-eight eruptions of Vesuvius are recorded in history up to the year 1806. That of 1779 has been described by Sir William Hamilton as among the most remarkable from its extraordinary and terrific appearance. During the whole of July the mountain was in a state of considerable fermentation, subterraneous explosions and rumbling noises being heard, and quantities of smoke thrown up with great violence, sometimes with red-hot stones, scoriæ, and ashes. On the 5th of August the volcano was greatly agitated, a white sulphurous smoke, apparently four times the height and size of the volcano itself, issuing from the crater, at the same time that vast quantities of stones, &c. were thrown up to the supposed height of 2000 feet. The liquid lava, having cleared the rim of the crater, flowed down the sides of the moutain to the distance of four miles. The air was darkened by showers of reddish ashes, blen

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ded with long filaments of a vitrified matter resembling glass.

On the 7th, at midnight, a fountain of fire shot up from the crater to an incredible height, casting so bright a light that the smallest objects were clearly distinguishable at any place within six miles of the volcano. On the following evening, after a tremendous explosion, which broke the windows of the houses at Portici, another fountain of liquid fire rose to the surprising height of 10,000 feet (nearly two miles,) while puffs of the blackest smoke accompanied the red-hot lava, interrupting its splendid brightness here and there by patches of the darkest hue. The lava was partly directed by the wind towards Ottainano, on which so thick a shower of ashes, blended with vast pieces of scoriæ, fell, that, had it been of longer continuance, the people would have been burned in their houses, it being impossible for them to stir out. To add to the horror of the scene, incessant volcanic lightning darted through the black cloud that surrounded them, while the sulphureous smell and heat would scarcely allow them to draw their breath. In this dreadful state they remained nearly half an hour. The remaining part of the lava, still red-hot and liquid, fell on the top of Vesuvius, and covered its whole cone, together with that of La Somma, and the valley between them, thus forming one complete body of fire, which could not be less than two miles and a half in breadth, and casting a heat to the distance of at least six miles around.

The eruption of 1794 is accurately described by the above writer; but has not an equal degree of interest with the one cited above. We subjoin a few particulars, among which is a circumstance well deserving notice, as it leads to an estimate of the degree of heat in volcanoes. Sir William says that although the town of Torre del Greco was instantly surrounded with red-hot lava, the inhabitants saved themselves by coming out of the tops of their houses on the following day. It is evident, observes Mr. Kirwan, that if this lava had been hot enough to melt even the most fusible stones, these persons must have been suffocated.

This eruption happened on the 15th of June, at ten o'clock at night, and was announced by a shock of an

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earthquake, which was distinctly felt at Naples. At the same moment a fountain of bright fire, attended with a very black smoke and a loud report, was seen to issue, and rise to a considerable height, from about the middle of the cone of Vesuvius. It was hastily succeeded by other fountains, fifteen of which were counted, all in a direct line, tending for the space of about a mile and a half downward, towards the towns of Resina and Torre del Greco. This fiery scene—this great operation of nature—was accompanied by the loudest thunder, the incessant reports of which, like those of numerous heavy artillery, were attended by a continued hollow murmur, similar to that of the roaring of the ocean during a violent storm. Another blowing noise resembled that of the ascent of a large flight of rockets. The houses at Naples were for several hours in a constant tremor, the doors and windows shaking and rattling incessantly, and the bells ringing. At this awful moment the sky, from a bright full-moon, and star-light, became obscured; the moon seemed eclipsed, and was soon lost in obscurity. The murmur of the prayers and lamentations of a numerous population, forming various processions, and parading the streets, added to the horrors of the scene.

On the following day a new mouth was opened on the opposite side of the mountain, facing the town of Ottainano: from this aperture a considerable stream of lava issued, and ran with great velocity through a wood, which it burnt; but stopped, after having run about three miles in a few hours, before it reached the vineyards and cultivated lands. The lava which had flowed from several new mouths on the south-side of the mountain, reached the sea into which it ran, after having overwhelmed, burnt, and destroyed the greater part of Torre del Greco, through the centre of which it took its course. This town contained about 18,000 inhabitants, all of whom escaped, with the exception of about fifteen, who through age or infirmity, were overwhelmed in their houses by the lava. Its rapid progress was such, that the goods and effects were entirely abandoned.

It was ascertained sometime after, that a considerable part of the crater had fallen in, so as to have given

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a great extension to the mouth of Vesuvius, which was conjectured to be nearly two miles in circumference. This sinking of the crater was chiefly on the west side, opposite Naples, and, in all probability, occured early in the morning of the 18th, when a violent shock of an earthquake was felt at Resina, and other places situated at the foot of the volcano. The clouds of smoke which issued from the now widely extended mouth of Vesuvius, were of such a density as to appear to force their passage with the utmost difficulty. One cloud heaped itself on another, and, succeeding each other incessantly, they formed in a few hours such a gigantic and elevated column, of the darkest hue, over the mountain, as seemed to threaten Naples with immediate destruction, it having at one time been bent over the city, and appearing to be much too massive and ponderous to remain long suspended in the air.

From the above time till 1804 Vesuvius remained in a state of almost constant tranquility. Symptoms of a fresh eruption had manifested themselves for several months, when at length on the night of the 11th of August, a deep roaring was heard at the Hermitage of Salvador, and the places adjacent to the mountain, accompanied by shocks of an earthquake, which were sensibly felt at Resina. On the following morning, at noon, a thick black smoke arose from the mouth of the crater, which, dilating prodigiously, covered the whole volcano. In the evening loud explosions were heard; and at Naples a column of fire was seen to rise from the aperture, carrying up stones in a state of complete ignition, which fell again into the crater. The noise by which these igneous explosions were accompanied resembled the roaring of the most dreadful tempest, and the whistling of the most furious winds; while the celerity with which the substances were ejected was such, that the first emission had not terminated when it was succeeded by a second. Small monticules were at this time formed of a fluid matter, resembling a vitreous paste of a red color, which flowed from the mouth of the crater; and these became more considerable in proportion as the matter accumulated.

In this state the eruption continued for several days, the fire being equally intense, with frequent and dread-

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ful noises. On the 28th, amid these fearful symptoms, another aperture, ejecting fire and stones, situated behind the crater, was seen from Naples. The burning mass of lava which escaped from the crater on the following day, was distinguished from Torre del Greco, having the appearance of a vitreous fluid, and advancing towards the base of the mountain between the south and south-west. It reached the base on the 30th, having flowed from the aperture, in less than twenty-four hours, a distance of 3,053 feet, while its mean breadth appeared to be about 350, but at the base 860 feet. In its course it divided into four branches, and finally reached a spot called the Guide's Retreat. Its entire progress to this point was more than a mile, so that, taking a mean proportion, this lava flowed at the rate of eighty-six feet an hour.

At the time of this eruption Kotzebue was at Naples. Vesuvius lay opposite to his window, and when it was dark he could clearly perceive in what manner the masses of fire rolled down the mountain. As long as any glimmering of light remained, that part of the mountain was to be seen, on the declivity of which the lava formed a straight but oblique line. As soon, however, as it was perfectly dark, and the mountain itself had vanished from the eye, it seemed as if a comet with a long tail stood in the sky. The spectacle was awful and grand!

He ascended the mountain on the morning succeeding the opening of a new gulf, and approached the crater as nearly as prudence would allow. From its centre ascended the sulphurous yellow cone which the eruption of this year had formed: on the other side, a thick smoke perpetually arose from the abyss opened during the preceding night. The side of the crater opposite to him, which rose considerably higher than that on which he stood, afforded a singular aspect: for it was covered with little pillars of smoke, which burst forth from it, and had some resemblance to extinguished lights. The air over the crater was actually embodied, and was clearly to be seen in a tremulous motion. Below, it boiled and roared dreadfully, like the most violent hurricane; but occasionally a sudden deadly stillness ensued for some moments, after which the roaring recom-

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menced with double vehemence, and the smoke burst forth in thicker and blacker clouds. It was, he observes, as if the spirit of the mountain had suddenly tried to stop the gulf, while the flames indignantly refused to endure the confinement.

It is remarkable, that the great eruption of 1805 happened on the 12th of August, within a day of that of the preceding year. Subterraneous noises had been previously heard, and a general apprehension of some violent commotion prevailing, the inhabitants of Torre del Greco and Annunciada had left their homes, through the apprehension of a shower of fire and ashes, similar to that which burried Pompeii. The stream of lava took the same course with that of 1794, described above, one of the arms following the direction of the great road, and rolling towards the sea. The stream soon divided again, and spreading itself with an increased celerity, swept away many houses and the finest plantations. The other branch, at first, took the direction of Portici, which was threatened; but turning, and joining the preceding one, formed a sort of islet of boiling lava in the middle, both ending in the sea, and composing a promontory of volcanic matters. In the space of twenty minutes the whole extent of ground which the lava occupied was on fire, offering a terrible yet singular spectacle, as the burning trees presented the aspect of white flames, in contrast with those of the volcanic matters, which were red. The lava swept along with it enormous masses of whatever occurred in its course, and, on its reaching the sea, nothing was to be seen or heard for a great extent of shore, beside the boiling and hissing arising from the conflict of the water and fire.

It remains now to introduce a slight notice of the eruption of 1806, which, without any sensible indication, took place on the evening of the 31st of May, when a bright flame rose from the mountain to the height of about 600 feet, sinking and rising alternately, and affording so clear a light, that a letter might have been read at the distance of a league around the mountain. On the following morning, without any earthquake preceding, as had been customary, the volcano began to eject inflamed substances from three new mouths, pretty near to each other, and about 650 feet

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from the summit. The lava took the direction of Torre del Greco and Annunciada, approaching Portici, on the road leading from Naples to Pompeii. Throughout the whole of the second of June, a noise was heard, resembling that of two armies engaged, when the discharges of artillery and musketry are very brisk. The current of lava now resembled a wall of glass in a state of fusion, sparks and flashes issuing from time to time, with a powerful detonation. Vines, trees, houses,—whatever objects, in short, it encountered on its way, were instantly overthrown or destroyed. In one part, where it met with the resistance of a wall, it formed a cascade of fire. In a few days Portici, Resina, and Torre del Greco, were covered with ashes thrown out by the volcano; and, on the ninth, the two former places were deluged with a thick black rain, consisting of a species of mud filled with sulphureous particles. On the first of July, the ancient crater had wholly disappeared, being filled with ashes and lava, and a new one was formed in the eastern part of the mountain, about 600 feet in depth, and having about the same width at the opening. Several persons, on the above day, descended about half way down this new mouth, and remained half an hour very near the flames, admiring the spectacle presented by the liquid lava, which bubbled up at the bottom of the crater, like the fused matter in a glass-house. This eruption continued until September, made great ravages, and was considered as one of the most terrible that had occurred in the memory of the inhabitants.

THE CAMEL'S HUMP.

BY THE REV. E. E. GRISWOLD.

The Camel's Hump, one of the finest mountains in New England, derives its name from a fancied resemblance of its outline to the figure of a Camel. It rises to an elevation of nearly 5000 feet, and is the highest peak but one in the Green Mountain range. The Camel's Hump is about fifty miles south of the Cana-

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da line and when viewed from Lake Champlain is a most picturesque object, rising in majestic preeminence above the neighboring hills and presenting in bold relief against the sky the figure of the animal whose name it bears. The outline is strikingly exact; the central and highest part representing the Hump, while a curve towards the north gives the figure of the neck and the southern declivity slopes in the direction of the tail.—In travelling through this section of Vermont in 1830, the writer observed the summit of the mountain covered with snow as early as the 3d of September, and was informed by the inhabitants that it might frequently be seen whitened over in June. Its base borders on the Onion River Valley, which, it is well known was the great thoroughfare of the Indians in the early history of the colonies. From this mountain they used to descend, like a torrent, on the towns of the Connecticut, and on its summit they built their signal fires which could be seen to an immense distance over the River on the one side and far into Canada on the other.

In the early part of July, the writer in company with a friend and guide, visited the mountain and spent a night on its summit. When we started, the sun shone brightly and gave abundant promise of a pleasant season for the excursion: but it soon became obscured. Our route for the last four miles, lay through tangled woods without a human habitation, and all the way ascending except when intercepted by deep ravines formed by descending torrents. On arriving at the summit, we found to our dismay, that it was sunset, and that the sun had set behind massses of black and threatening clouds. We immediately struck a fire and set about building ourselves a house with the boughs of the spruce, which grew in scattered clusters round the rocks. At this elevation the Spruce attains the height of about six feet, and sends out lateral branches of a length that frequently exceeds that of the tree. The lower branches extend so near the ground that it was necessary to climb over them in order to pass through the Copse.—The night was growing dark so rapidly, accompanied with the thickening signs of the approaching storm, that we almost despaired of completing any thing like an adequate shelter from the elements. But we plied our

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hatchets lustily, urged by the strong impulse of necessity, and had the satisfaction of finishing our house just, as we were becoming enveloped in utter darkness.

I will not attempt to describe our sensations; those who have been placed in similar circumstances will readily appreciate them. All that constitutes the grand and the sublime formed the elements of the scene. Immediately before us was the brink of a tremendous precipice. Below, above, around, all was impenetrable darkness, into which our fire seemed vainly trying to send a few straggling rays, that only served to make its "darkness visible."—The fire itself seemed the sport of some superhuman agency. Being kindled on the very summit of the mountain, it was blown in one large sheet of flame, one instant to the north, the next to the south, and again directly into the black and matted foliage of the roof above our heads. Far in the world below, twinkled a few glimmering lights, that seemed like "stars fallen from their places," while around the cliffs, with a solemn, thunder like voice, bellowed the mighty winds, at times, shaking the mountain to its very base, as though they were pent up in its bowels and struggling for deliverance. All around combined to inspire the most exalted conceptions of *Him* "who hath weighed the mountains in scales, and holds the winds in his fists."—At length the morning dawned upon us, the clouds had partially passed away, and now, for the first time, could we fully enjoy the unrivalled glories of the scene, we were reminded of the prospect, as described by travellers, from the summit of Ætna.—Clouds were sweeping by on a level with our feet or far below them, for a moment obscuring objects. and then leaving them in clearer view; on our right and in front as we faced the north, the river with its numerous tributary streams, like lines of silver, measured their way to the lake. On our left, spread out the beautifully undulating country between the mountain and Champlain, the lake itself, though twenty miles away, seeming to lie, with its beautiful green islands, at our very feet, while, beyond its western shore the mountains of Essex closed the view. —After enjoying the scene, we descended the mountain and continued our route.

Dec. 1832.

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TOPOGRAPHICAL SKETCHES, NO. IX.

MADRID.

With an Engraving.—See page. 315.

The city of Madrid is the Capital of New Castile and of the whole Spanish Empire. It is situated on the left bank of the small stream of Manzarares, on several sand hills which form the last declivity of the mountains of Guadarrama. It is the highest capital in Europe, for its elevation is fifteen times as great as that of Paris, and nearly twice that of Geneva: it stands two thousand feet above the level of the sea, and nearly mathematically in the centre of the peninsula. There is nothing in the neighborhood of Madrid that announces the approach to a great city; it has no immediate environs, no villas of the rich inhabitants, none of those delightful little country seats usually found clustering round the walls of a capital; the country is very irregular, broken into an infinite succession of misshapen hills, totally destitute of wood and even of vines, and the villages being generally in hollows, there is little to relieve the dreariness of the scene.—But the view of the city itself, when seen from a neighboring mountain across the intervening valley of Manzarares, is extremely imposing; it offers a compact mass, crowned every where with countless domes of temples and palaces, which convey, in a high degree, the idea of magnificence and splendor. —The streets in Madrid are straight and, in general, wider than those in most cities in Europe; a fact which is probably owing to its being almost entirely modern, and being built under royal patronage. For although the Spaniards would carry back its origin to a period anterior to the foundation of Rome, the first mention that is any where made of it in history is in the tenth century, two hundred and twenty five years after the Moorish invasion, and the first king of Castile who was proclaimed in it was Don Enrique the third, in 1394.— The principal streets are paved with square blocks of stone and they all meet in an open place in the heart of the city called the *Puerta del sol*, or gate of the sun. In former times it was the eastern gate of the city, but when the court came to Madrid, the nobility who follow-

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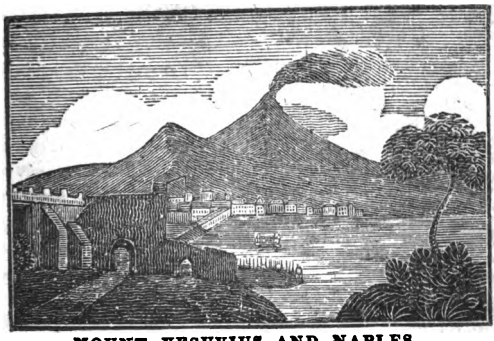
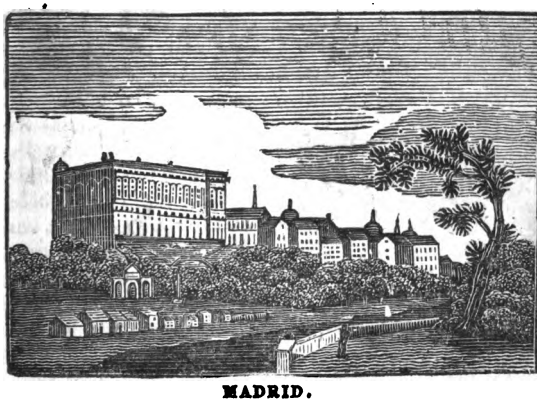


MOUNT VESUVIUS AND NAPLES.



MADRID.

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ed in its train constructed their palaces in the open space, to the east, so that the *Puerta del sol*, from having been the extremity, became the centre of Madrid. Go where you will, almost, you pass through the *Puerta del sol*, for here you can choose a street that will lead you directly to the place of which you are in search; and put yourself in any street in the extremity of the city it is sure to discharge you here. In this way all Madrid passes daily through this place of general outpouring, and here a stranger may pass in review the whole capital. Here the exchange is each day held and the merchant comes to talk of his affairs; the politician wrapped in his cloak whispers his news; old women with oranges and pomegranates pass with their baskets; and the sturdy beggars demand alms in the name of Maria Santissima. Here too may be seen all the costumes of Spain; the long red cap of the Catalan; the Valencian with his blanket and airy *bragas*, though in the midst of winter; *Montero* cap of the Manchego; the leathern cuirass of the old Castilian; the trunk hose of the Leones; the coarse garb of the Gallego; and the round hat of Andalusia.——At one moment, a regiment of the royal guard passes to review, in the next the trumpet sounds, and the drums of the neighboring piquets are heard beating the call.—The coaches and six approach, guarded by a splendid accompaniment. The cry of "Los Reges," passes from mouth to mouth; and the Spaniards, unrolling their cloaks and doffing their hats, give place for the absolute king.—Presently a bell rings, and every voice is hushed. A long procession of men with each a burning taper, is seen preceding a priest who is carrying the reconciling sacrament to smooth the death bed of some repenting sinner. Does it meet a carriage though containing the first grandee of Spain, the owner descends, throws himself upon his knees in the middle of the street, and allows the host to pass. '*Su majested*,' his majesty, to indicate the presence of the SAVIOUR sacramentized,* passes in a tremulous whisper from lip to lip. The faithful are all uncovered and kneeling; they

* We need hardly remind our readers that in the Catholic religion, the Savior is believed to be actually present, in the consecrated elements of the sacrament.

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smite their breasts with contrition, and hold down their heads as if unworthy to look upon the Lamb.———

The palaces of the high nobility are built in a quadrangular form, with a square in the centre. The mass of the dwelling-houses, however, are built much in our own way. But they have rather a prison look, for the windows of the first floor are grated with bars of iron; whilst the stout door of wood, well studded with spike heads, has more the appearance of the gate of a fortified town, than of the entrance to the dwelling of a peaceable citizen. These precautions are rendered necessary by the number and boldness of the robbers of Madrid.

Madrid has one hundred and forty-six temples for worship, including collegiate and parish churches, convents, oratorios, chapels and hermitages. Among this number, are sixty-two convents for monks and nuns. It has besides, eighteen hospitals, thirteen colleges, fifteen academies, four public libraries, six prisons, fifteen gates of granite, eighty five squares and places, and fifty public fountains, which supply the inhabitants with delightful water brought from mountain springs thirty miles from the city.—But by far the noblest edifice in Madrid is the royal palace. It consists of a hollow square four hundred and seventy feet on the outside, and one hundred and forty within. Within is a collonnade and gallery running entirely round the square, and without, a judicious distribution of windows, cornices and columns, unencumbered by redundant ornaments, except, indeed, in the heavy balustrade which crowns the whole. The construction of this palace is of the noblest and most durable kind, being without any wood except in the frame of the roof and the doors and windows. The palace is indeed a noble one. It is said by those who have visited the chief capitals of Europe that they have seen none superior to it.—

When we look for the local advantages of Madrid, we are at a loss to conceive how it ever became a great city. The surrounding country is so little adapted to pastoral or argricultural pursuits, that meats and fruits and almost all the necessaries of life are brought from the extremities of the Kingdom. These supplies of fish come on the backs of mules from the Atlantic and Me

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diterranean; cattle from Asturias and Gallicia, and fruit from the distant orchards of Andalusia and Valencia. With these disadvantages, manufactures can never flourish in Madrid; and, as to commerce, the mountains which form its barriers on the north and west, check its communications with half the peninsula, whilst the insignificant stream of Manzarares furnishes no facilities of transportation; none of any sort, indeed, except a supply of water for the accommodation of the washerwomen.

But though accident or caprice have alone given birth to Madrid, and though a city raised to wealth and power must necessarily relapse into insignificance, when the interests of the whole and not the will of one shall regulate the affairs of Spain, yet it is not the less a great city. It is nearly eight miles in circumference, and contains a population of one hundred and fifty thousand inhabitants. Madrid owes all its present magnificence to Charles the third. Under his care the royal palaces were finished; the custom house, the post office, the museum and royal painting office were constructed, the academy of the three noble arts improved, the cabinet of natural history, the botanic garden, the national bank and many gratuitous schools established; while convenient roads leading from the city, and delightful walks planted with trees and adorned by statues and fountains combine to announce his paternal solicitude.—For a fuller account of Madrid and Spain in general, we would refer our readers to a most interesting work, entitled, "A Year in Spain, by a Young American," to which we are principally indebted for the materials of the present sketches.

THE GOD OF NATURE.

Lift your views to that immense arch of heaven which encompasses you above.—Behold the sun in all its splendor rolling over your head by day, and the moon by night, in mild and serene majesty surrounded with that host of stars which present to the imagination an innumerable multitude of worlds. Listen to the awful

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voice of thunder. Listen to the roar of the tempest and the ocean—Survey the wonders that fill the earth which you inhabit. Contemplate a steady and powerful hand, bringing round spring and summer, autumn and winter, in regular course; decorating this earth with innumerable inhabitants, pouring forth comforts on all that live, and at the same time, overawing the nations with the violence of the elements, when it pleases the Creator to let them forth. After you have viewed yourself as surrounded with such a scene of wonders—after you have beheld on every hand, such an interesting display of majesty united with wisdom and goodness—are you not seized with solemn and serious awe?—Is there not something that whispers within, that to this Creator homage and reverence are due by all the rational beings whom he made? Admitted to be spectators of his works, placed in the midst of so many great and interesting objects, can you believe that you were brought here for no purpose, but to immerse yourselves in brutal, or at best, in trifling pleasures; lost to all sense of the wonders you behold; lost to all reverence to that God who gave you being, and who has erected this amazing fabric of nature, on which you look only with stupid and unmeaning eyes?—Now let the scenes which you behold prompt correspondent feelings. Let them awaken you from the degrading intoxication of licentiousness, into nobler emotions. Every object which you view in nature, whether great or small serves to instruct you. The stars and the insect, the fiery meteor and flowing spring, the verdant field and the lofty mountain, all exhibit a Supreme Power, before which you ought to tremble and adore, all preach the doctrine, all inspire the spirit of devotion and reverence. Regarding, then, the work of the Lord, let rising emotions of awe and gratitude call forth from your souls such sentiments as these:—"Lord, wherever I am, and whatever I enjoy, may I never forget thee, as the author of nature! May I never forget that I am thy creature, and thy subject! In this magnificent temple of the universe, where thou hast placed me, may I ever be thy faithful worshiper, and may the reverence and fear of God be the first sentiment of my heart."

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OUR NATIVE HOME.

There is no trait, perhaps, more common, or more amiable in the human character, than the attachment which each individual feels for his native country. When separated from kindred and from friends, he sighs in a far distant land from the place of his birth, with what resistless, tender and soul subduing influence does the remembrance of past scenes and pleasures rush upon his mind? His native hills and valleys, the bubbling brook, the groves, the meadows, and the fields, which witnessed the innocence and sportings of his youthful years, arise before his imagination, arrayed in all their beauty. The lonely invalid looks back with tender affection to the sacred spot where repose the slumbering ashes of his departed kindred. In the chaste and pious meditation, he feels a pleasurable melancholy steal over his soul which he would not exchange for all the sparkling joys of transient and unsubstantial amusements. But awakening from his pleasing reveries, he finds that he is in a distant country. In vain he looks around for the friends and companions of his youth—for all is sad, lonely and disconsolate. Tell him not that the gales which fan him are perfumed with odors, that the gentle zephyr brings health and balm on its wings, that roses and jessamines fill the soft air with fragrance, and that the verdant mantle of nature is spangled with flowers of the richest dyes. For neither the spicy gales, the balmy breath of the gentle zephyr, nor the roses, nor jessamines, nor nature's fairest livery, equal the air, the beauty and enchantment of his native land; to him the whispers of domestic love, tenderness, and affection, are more grateful and soothing, than the gentle fannings of the south wind, or the spicy breeze. To him, more pleasing would be the sight of his paternal mansion, though hung with icicles, and surrounded with the desolate emblems of winter, than the beauty and verdure which surrounded him in a distant nation.

> E'en the loud torrent and the whirlwind's roar,
> But bind him to his native mountains more.

His thoughts turn to the valued friends he has left be-

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hind him, and conscious of the melancholy reality he feels that he is a stranger in a foreign land; a thought that fills his soul with desolation; more especially when he considers that in a few revolving weeks or days, the sun will shine upon his new made grave in a land of strangers.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

Hydrostatics—Fluid support—Art of Swimming.

The art of swimming depends upon this acknowledged principle of hydrostatics; that a body lighter than its own bulk of water will float, and with a force proportioned to the difference,—now the human body in an ordinary healthy state is lighter than its own bulk of water, consequently it should float.—If this fact were generally and familiarly understood it would lead to the saving of more lives, in cases of shipwreck, or other accidents, than all the mechanical life preservers which man's ingenuity will ever contrive.

The human body with the chest full of air, is so much lighter than water that it naturally floats with the bulk of about half the head above the waters, having no more tendency to sink than a log of wood. That a person may live and breathe, then, it is only necessary to exert volition so as render the face the part which remains uppermost.—The reasons that so many persons are drowned in ordinary cases, who might easily be saved, are the following.

1. Their believing that continued exertion is necessary to keep the body from sinking, and hence their generally assuming the position of a swimmer in which the face is downwards, and the *whole* head must be kept out of the water to allow of breathing, now, the body raised for a moment by exertion above its natural level, sinks as far below when the exertion is remitted; and the plunge, by appearing the commencement of a permanent sinking, terrifies the unpractised individual, and renders him an easier victim to his fate.

2d. From a fear that water entering by the ears may

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drown, as if it entered by the nose or mouth, a wasteful exertion is made to prevent it; the truth being however; that it can only fill the outer ear, and is therefore of no consequence. Every diver and swimmer has his ears filled with water and with impunity.

3d. Persons unaccustomed to the water generally attempt in their struggle to keep their hands above the surface; but this act is most hurtful, because any part of the body kept out of the water, in addition to the face which must be so, requires an effort to support it which the individual is supposed at the time incompetent to afford.

4th. Not having reflected that when a log of wood or a human body is floating upright, with only a small portion above the surface, in rough water at sea, every wave, in passing, must cover the head for a little time, but will again leave it projecting in the interval. The practical swimmer chooses this interval for breathing.

5th. Not knowing the importance of keeping the chest as full of air as possible; the doing which has nearly the same effect as tying a bladder of air to the neck, and without any other effort will cause nearly the whole head to remain above water. If the chest be once emptied, and if from the face being under water the person cannot inhale again, the body is then specifically heavier than water, and will sink.

So little is required to keep a man's whole head above water, that many individuals altogether unacquainted with the art of swimming, have been saved after shipwreck by catching hold of a few floating chips or pieces of wood. An oar will suffice for a support for half a dozen people, if no one of the number attempts to keep more than his head out of the water; but from each wishing to have a good share of the security, it is often rendered less useful than it might be.—A common life preserver consists of strings of cork put round the chest or neck; or of an airtight bag round the upper part of the body, and which can be filled by the person blowing into it through a valved pipe.

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MUSIC IN A ROOM OF SICKNESS.

BY MRS. HEMANS.

Raise music! stir the brooding air
With an ethereal breath!
Bring sounds, my struggling soul to bear
Up from the couch of death!

A voice, a flute, a dreamy lay,
Such as the southern breeze
Might waft, at golden fall of day,
Over the blue transparent seas!

O, no, not such! that lingering spell
Would bind me back to life,
When my wean'd heart hath said farewell,
And passed the gates of strife.

Let not a sigh of human love
Blend with the song its tone!
Let no disturbing echo move
One that must die alone;

But pour a solemn breathing strain,
Fill'd with the soul of prayer;
Let a life's conflict, fear, and pain,
And trembling hope, be there!

Deeper, yet deeper, in my thought
Lies more prevailing sound;
A harmony intensely fraught
With pleading more profound;

A passion unto music given,—
A sweet, yet piercing cry;
A breaking heart's appeal to heaven,—
A bright faith's victory.

Deeper! O, may no richer power
Be in those notes enshrined?
Can all which crowds on earth's last hour,
No fuller language find?

Away! and hush the feeble song,
And let the chord be still'd!
Far in another land ere long,
My dream shall be fulfill'd.

In vain my soul its life would pour
On the faint music here,
The voices of the spirit-shore
Even now are in my ear.

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ART.

BY CHARLES SPRAGUE.

When from the sacred garden driven,
Man fled before his Maker's wrath,
An angel left her place in heaven,
And cross'd the wanderer's sunless path.
'T was Art! sweet Art! new radiance broke,
Where her light foot flew o'er the ground;
And thus with seraph voice she spoke,
'The curse a blessing shall be found.'

She led him through the trackless wild,
Where noontide sunbeams never blazed:—
The thistle shrunk—the harvest smiled,
And nature gladdened as she gazed.
Earth's thousand tribes of living things,
At Art's command to him are given,
The village grows, the city springs,
And point their spires of faith to heaven.

He rends the oak—and bids it ride,
To guard the shores its beauty graced;
He smites the rock—upheaved in pride,
See towers of strength, and domes of taste.
Earth's teeming caves their wealth reveal,
Fire bears his banner on the wave,
He bids the mortal poison heal,
And leaps triumphant o'er the grave.

He plucks the pearls that stud the deep,
Admiring Beauty's lap to fill:
He breaks the stubborn marble's sleep,
And mocks his own Creator's skill.
With thoughts that swell his glowing soul,
He bids the ore illume the page,
And proudly scorning time's control,
Commerces with an unborn age.

In fields of air he writes his name,
And treads the chamber of the sky;
He reads the stars, and grasps the flame,
That quivers round the Throne on high.
In war renowned, in peace sublime,
He moves in greatness and in grace;
His power subduing space and time,
Links realm to realm, and race to race.

If every ones internal care,
Were written on his brow
How many would our pity share,
Who raises our envy now.

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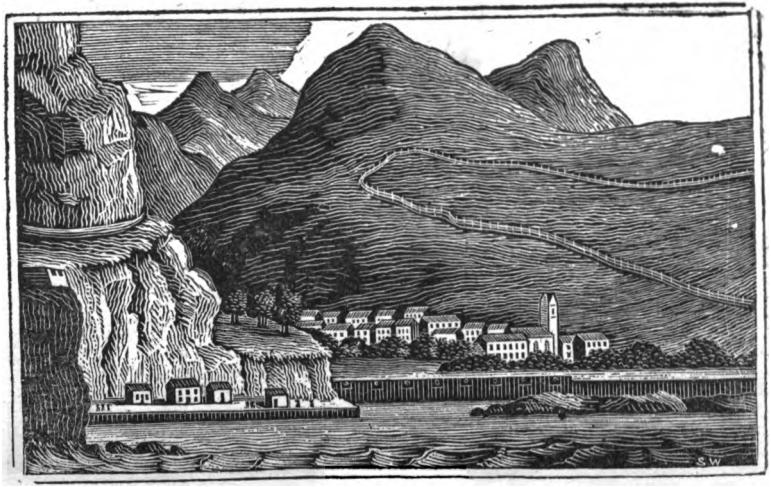

ST. HELENA.

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THE

MONTHLY REPOSITORY,

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Entertaining Knowledge.

VOL. III. MARCH, 1833. No. 10.

THE ISLAND OF ST. HELENA.

The Island of St. Helena lies in the Atlantic ocean detached from any group, 600 miles from Ascension island, the nearest land, and situated in longitude 5 degrees 49m. west from Greenwich, and lat. 15 deg. 5 min. south. The island is 10 1-2 miles long by 6 3-4 broad. It presents to the sea throughout its whole circuit, nothing but an immense wall of perpendicular rock from 600 to 1200 feet high, like a castle in the midst of the ocean. Its aspect is still more bleak and dreary than that of Ascension; the whole exterior being forbidding, and were it not so well known, nobody would suppose it contained inhabitants; for rough and barren rocks, perpendicular precipices, shores literally iron bound, added to rocky and grassless hills, seems as if, by its formation, man had been intentionally excluded.

St. Helena was discovered by Don Juan de Caleca or de Nova, a Portuguese navigator, on St. Helen's day, 1502. The English first took possession in 1600; and it has ever since remained under their authority. James' Town, the only one in the island, and called after James II., does not become visible till you arrive near the anchorage which lies directly opposite. It is situated in a valley, a deep narrow ravine, flanked by steep stony ridges, towering above it to a considerable height. That to the left when viewed from the sea, is termed Rupert's hill; so called from the famous prince of that name having a carriage road cut along its brow. The

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first view of the town is not unpleasing, it is formed by one principal street of some length extending directly up the valley. The houses are small and white-washed, they consist principally of shops and lodging houses; it also contains a church, a residence for the governor, a theatre built in 1807, a tavern, barracks, and (what would be better in any other situation) a burying ground. Several batteries and posts surrounds it on all sides. St. Helena attracts attention as having been the prison of Napoleon Bonaparte from the year 1815, till his death, May 5th, 1821

PASSAGE OF THE RED SEA.

The miracles of the first dispensation of Christianity were called for by the stupidity of mankind. The systematic course of nature lulls the mind to sleep, and the being who is hourly conversant with wonders quite as astonishing as any miracle could be, accustomed to the frequency and regularity of their recurrence, learns to regard them as the necessary order of events—and, therefore, not surprising. On this rock Infidelity has made desolating shipwrecks. The infidel has disbelieved the bible account of miracles, simply because the laws of nature were abrogated by such occurrences, when, in fact, to the eye of the reflecting philosopher, the uniform course of nature, according, day after day as well as century after century, with known principles of being and motion, is a standing miracle, transcendantly more incomprehensible than any occasional and startling deviation. But all mankind were not philosophers and became insensible to the hourly mysteries of nature and of their own being—and their Father in heaven, for great moral purposes, ordered, from time to time, certain innovations to rouse them to a perception of a present deity.

The miraculous cleaving of the Red Sea, its walls of waters on either hand of the dry passage like ramparts, and their ruinous junction, after the chosen people had passed through, afford a picture of sublimity unequalled on the canvass that heaves with the grandest scenes of

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time; yet no single miracle on record has been so obstinately ascribed to natural causes as this. The truth of the passage of a fugitive nation safely over this sea, and the destruction of their followers stands on a basis broader than that of the Pyramids.

The site of this event has been pointed out from the day of its occurrence to the present—and, in Napoleon's expedition to the Nile in the early period of his military career, as Lockhart relates, it was near being the scene of another catastrophe that might have had an important influence on the destinies of the world. Towards evening Napoleon and his suit rode into the shallow waters of the Red Sea at the reputed spot of Pharoah's overthrow, desirous of ascertaining to what extent they were fordable to their horses. Darkness was gathering, when suddenly the tides, there extremely rapid, were upon them, and the horses found themselves beyond their depth. The point of compass was lost, the shore was not visible, and a council of war was instantly called to decide on measures for escape. Napoleon, by one of those decisions of mind so frequently useful to him in the future emergencies of his eventful life, ordered a circle to be formed and each horseman to ride from it as a radius from a centre, stopping when the depth of water prevented further progress. The next movement was for all to follow the horseman that rode on the farthest, showing the longest path of shoal water —and this was Napoleon's path from the grave of one of the Pharoahs.

The story of this catastrophe of Pharoah is not destitute of deep moral instruction. The unyielding character of man, when roused up to take decisive positions, is well illustrated in the entire history of the Egyptian plagues. The nature of the greater part of these calamities was such as would scarcely permit them to be referred to natural causes. They had all been threatened as warnings to the proud king to favor the oppressed people of the Lord; these warnings were unheeded, and the judgments came. Every time the impious monarch arrayed himself against his maker, he had failed. He had seen the prophet raise in his hand the rod which had been turned into a serpent, and smite the waters—the waters turned into blood; he had seen

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frogs cover the land, and invade his bed chambers; he had seen the dust of the earth become a loathsome animation; he had seen the air burdened with flies; he had seen the cattle of his plains afflicted; he had seen his people affected with a disease in common with every living thing; he had seen the atmosphere gather blackness and when the appalling thunder broke in the gloom, hail mingled with fierce flames smote upon the vales of Egypt; he had seen locusts in countless millions swarm on his coasts, and leave no green thing behind them; he had seen and felt the Stygian darkness that lay like a dreadful incubus over all his land—a blackness alike impervious to the sun's bright ray, or the glare of earthly fires; he had heard the melancholy midnight cry arise from one extremity of his realm to the other as the angel of death struck the pitiless blow on every first born—and yet, even then, he barely consents to let this people go.

Ten times warned and punished, who would have thought that the plains of Egypt would have gleamed far and wide with martial array, and that vengeance should have put on its cruel trappings to sweep from the earth a long afflicted, enslaved people! The circumstances of the chosen people, the gathering wrath of their pursuers—the Red Sea, with its multitudinous waves before, and the rough waves of plumes, of spears and chariots and archers behind, and the passage through the parted billows, are well described in an unfinished poem of the late, elegant and pious Bishop Heber of India. The following is a brief extract:

Friend of the poor! the poor and friendless save.—
Giver and Lord of Freedom! help the slave.
North, South, and West, the sandy whirlwinds fly,
The circling pale of Egypt's chivalry,
On earth's last margin throng the weeping train,
Their cloudy guide moves on—and must we swim the main;
Mid the light spray their snorting camels stood,
Nor bath'd a fetlock in the nauseous flood.
He comes—their leader comes—the man of God
O'er the wide waters lifts his mighty rod,
And onward treads; the circling waves retreat
In hoarse, deep murmurs, from his holy feet;
And the chafed surges, inly roaring show,
The hard wet sand, and coral hills below,
With limbs that falter, and with hearts that swell,

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Down, down they pass, a steep and slippery dell:
Round them arise, in pristine chaos hurl'd,
The ancient rocks, the secrets of the world;
And flowers that blush beneath the ocean green;
And caves, the sea-calf's low roof'd haunts are seen.
Down, safely down the narrow pass they tread,
The seething waters storm above their head;
While far behind retires the sinking day,
And fades on Edon's hills its latest ray.
Yet not from Israel fled the friendly light,
Or dark to them, or cheerless came the night,
Still in the van along that dreadful road,
Blazed broad and fierce the brandish'd torch of God:
Its meteor glare a tenfold lustre gave
On the long mirror of the rosy wave.

MISERABLE STATE OF THE FEMALE SEX IN PAGAN AND MAHOMETAN NATIONS

ABRIDGED FROM THE ABBE GREGOIRE.

Among uncivilized nations there are too few moral relations between the sexes to counteract the superior physical strength of the one; but when the other can compensate for its inferiority in this particular by the charms of virtue and religion,—by the qualities of the head and heart, its empire softens the manners, and man, in loving his wife, accustoms himself to respect his equal. The respect paid to the sex may be taken as a safe criterion of the progress of a people in civilization; it will be found to depend on the development of the moral faculties in women which can approach perfection under the genial influence of christianity alone.

By some of the nations of antiquity, the sex were held in high estimation, but in most of them, and even among the Israelites, they were treated with very little respect. If we turn to the Prophet Malachi, we find that in his time, his countrymen merited this reproach. We learn the same thing from the childish stories of the Rabbi's, concerning the embarrassment of the Almighty in creating the first woman; from the daily thanksgiving of the Jews. "Blessed be thou O creator of the heavens and the earth, because thou hast not made me a woman,"—and from that of the despised female who says with resignation—"Blessed be thou for having formed me according to thy good pleasure."

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In many cases, punishments the most abhorrent to humanity are inflicted on guilty females, such as drowning, and causing them to be worried and devoured by dogs.

Among the ancient Slavonians, widows burned themselves on the pile erected to consume the bodies of their husbands. This barbarous practice was abolished by christianity. In spite of all the efforts of the British, it still prevails in India, where idolatry kills greater numbers than the sword. In six months, one hundred and fifteen widows were burned with the remains of their husbands within thirty miles round Calcutta. The number of women who annually perish in this manner exceeds ten thousand.

In 1789 it was discovered that the inhabitants of Ivanpore in India, were in the habit of puting to death all their female infants; and were in consequence obliged to seek wives among another people. Above three thousand female infants were in this way destroyed every year; and the same practice was known to be followed by other tribes. The antiquity of this custom, which is supposed by Rev. Dr. Buchanan to have existed more than two thousand years, and the alleged inferiority of the female sex, were the pretexts for persevering in it. These atrocities are perpetrated among people who seem to have abjured all humanity towards rational creatures, and to have reserved the exclusive exercise of it in behalf of brutes. Before we quit India, we must observe, that if a woman happens to be the first object met by a person after leaving his house in a morning, she is an omen of ill luck. In China where civilization is said to have made such progress, Lord Macartney saw women harnessed, like oxen, to the plough.

Among savage nations the condition of the sex is still more deplorable. All navigators and travellers agree in this. Foster remarks that in New Zealand, boys are taught from their infancy to despise their mothers. At Nukahiva, in time of famine, the men kill and eat their wives.

As to the Mahometans, Lady Montague asserts that we entertain false ideas of the confinement of their women, and even professes to envy them the felicity of vegetating in a harem. But talented and highly gifted

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as she unquestionably was, we may very justly question her veracity. It is not to be believed that the situation of women is enviable in a country where the law authorizes, their being let out to live, and where the testimony of two women is not of equal weight with that of one man. The Musselman can hardly conceive if possible that any one can feel respect for beings, when their opinion never raise them above contempt.

The picture here presented, we trust, will be considered useful for the purpose of showing the more clearly by contrast, the influence of christianity on the female sex,—an influence which is permanent, because it results from its doctrines.

THE HOUSE THAT JACK BUILT.

As the occupations and pleasures of childhood produce a powerful impression on the memory, it is probable that almost every reader recollects the delight with which he repeated that puerile jingling legend, "The House that Jack built." Very few, however, are at all aware of the original form of its composition, or the particular subject it was designed to illustrate. And fewer still would suspect that it is only an accommodated and altered translation of an ancient parabolical hymn, sung by the Jews at the feast of the passover, and commemorative of the principal events in the history of that people. Yet such is actually the fact. The original, in the Chaldee language, is now lying before me; and as it may not be uninteresting to the readers of your Magazine, I will here furnish them with a literal translation of it, and then add the interpretation, as given by P. N. Lebercht, Leipsic, 1731. The hymn itself is found in *Sepher Haggadah*, fol. 23.

1. A kid, a kid my father bought,
For two pieces of money:
A kid, a kid.

2. Then came the cat, and ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

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3. Then came the dog, and bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

4 Then came the staff, and beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

5. Then came the fire, and burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my Father bought,
For two pieces of money:
A kid, a kid.

6. Then came the water, and quenched the fire,
That burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

7. Then came the ox, and drank the water,
That quenched the fire,
That burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

8. Then came the butcher, and slew the ox,
That drank the water,
That quenched the fire,
That burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

9. Then came the angel of death, and killed the butcher,
That slew the ox,

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That drank the water,
That quenched the fire,
That burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

10. Then came the Holy One, blessed be He!
And killed the angel of death,
That killed the butcher,
That slew the ox,
That drank the water,
That quenched the fire,
That burned the staff,
That beat the dog,
That bit the cat,
That ate the kid,
That my father bought,
For two pieces of money:
A kid, a kid.

The following is the interpretation:—

1 The kid which was one of the pure animals, denotes the Hebrews.

The father, by whom it was purchased, is Jehovah, who represents himself as sustaining this relation to the Hebrew nation.

The two pieces of money signify Moses and Aaron, through whose mediation the Hebrews were brought out of Egypt.

2. The cat denotes the Assyrians, by whom the ten tribes were carried into captivity.

3. The dog is symbolical of the Babylonians.

4. The staff signifies the Persians.

5. The fire indicates the Grecian empire, under Alexander the Great.

6. The water betokens the Roman, or the fourth of the great monarchies, to whose dominion the Jews were subjected.

7. The ox is a symbol of the Saracens, who subdued Palestine, and brought it under the caliphate.

8. The butcher that killed the ox denotes the Crusaders by whom the Holy Land was wrested out of the hands of the Saracens.

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9. The angel of death signifies the Turkish power, by which the land of Palestine was taken from the Franks, and to which it is still subject.

10. The commencement of the tenth stanza is designed to show that God will take signal vengeance on the Turks, immediately after whose overthrow the Jews are to be restored to their own land, and live under the government of their long expected Messiah. E. H.

CALCUTTA.

With an Engraving.—See page. 339.

The presidency of Calcutta, or Bengal, contains an area of two hundred thousand square miles, and a population of about forty millions. The gross produce of the land annually is estimated at forty-three millions, about a seventh part of which comes into the treasury of the British East India Company. The whole revenue is about twelve millions sterling, and the charges of the government are estimated at seven millions. The external and internal trade of the Presidency averages about fourteen millions annually, a great part of which is carried on by private adventurers, since the opening of the ports of Calcutta, Bombay and Madras, to a free trade. Above six hundred vessels depart from Calcutta annually, with a hundred and fifty thousand tons of merchandize: and the same number on an average, sail up the river.

The city of Calcutta, the Capital of British India, stands on the east bank of the river Hooghly, and about one hundred miles from the sea. The river is about a mile broad, at the city. The approach is magnificent, each bank being adorned with elegant villas and gardens. The city extends about six miles, and its numerous spires of churches, temples and minarets, its strong fortress and its great variety of public buildings gives it a very imposing appearance. The suburb of Chouringee consists of a line of Grecian palaces.—This suburb, and indeed, the city of Calcutta, is seen to the most striking

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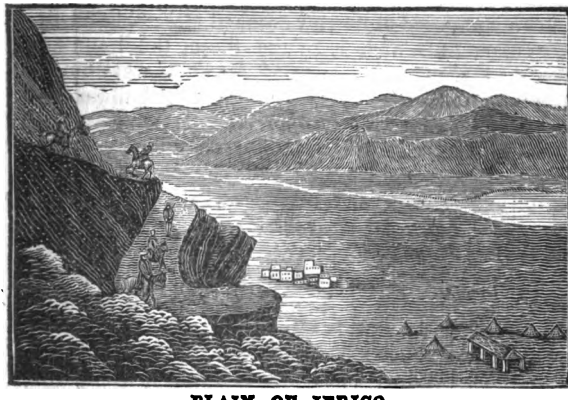
CALCUTTA.



PLAIN OF JERICO.

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advantage from the fort. You cross a large green plain having on the left, the Hooghly with its forest of masts and sails seen through the stems of a double row of trees: on the right hand is the district of Chouringee, lately a mere scattered suburb, but now almost as closely built and very little less extensive than Calcutta. In front is the esplanade, containing the governor's house, the Town Hall, and many handsome private dwellings. No native dwellings are visible from this quarter, except one extensive bazaar which occupies the angle where Calcutta and Chouringee joins.—The number of houses is estimated at one hundred thousand, and of inhabitants at six hundred thousand. The part of the city inhabited by Europeans contains about ten thousand houses, and these are the only ones that are well built. The European society is numerous, living luxuriantly and presenting a splendid appearance. Visits are generally made in palanquins, but covered and open carriages, of English fashion, are much used. Places of amusement are not numerous. There is one respectable theatre and an assembly room; but neither is much frequented.—All the western part of Calcutta is a vast town composed of narrow crooked streets, brick bazars, bamboo huts, and, here and there, the immense convent-like mansion of some of the more wealthy Indian merchants and bankers.—Of the public buildings of Calcutta, the Town Hall had no other merit than that of size; but the Government House is a noble structure. It consists of two semicircular galleries, placed back to back, uniting in the centre in a large hall, and connecting four splendid suits of apartments. The Cathedral is also a handsome building, the inside is elegant, paved with marble and furnished with very large and handsome glass chandeliers. The school for European female orphans is a spacious airy building well adapted to its purpose and admirably conducted. The free school is a noble institution; consisting of a school where two hundred and fifty boys and girls are lodged, boarded, and clothed. They are instructed in the ordinary English branches of education, and in the christian faith and duties, for which purpose the catechisms and other works furnished by the English Society for promoting christian knowledge, are employed. Some few of the

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day scholars are Armenian christians, whose parents object to these formulæ; and some Hindoos are allowed to attend, who also stand on one side when the catechism is repeated, though they say the Lord's prayer and read the Scriptures without scruple. The children of Roman Catholics, of whom there are also several, make no such difficulties, and even attend church with the rest of the scholars. They are in fact so ignorant and neglected, that many of them have no idea of christianity except what they learn here.—The Botanic Garden is a very beautiful and well managed institution, enriched with the noblest trees and most beautiful plants of India, besides a vast collection of exotics from every quarter of the globe. "It is" says Bishop Heber, "not only a curious but a picturesque and most beautiful scene, and more perfectly resembles Milton's idea of Paradise, than any thing which I ever saw. Among the exotics I noticed the Nutmeg, a pretty tree something like a myrtle, with a beautiful peach like blossom, but too delicate for the winter even of Bengal, and therefore placed in the most sheltered situation and carefully matted round. The Sago Palm is a tree of great singularity and beauty, and in a grove or avenue produces an effect of striking solemnity, not unlike that of Gothic Architecture.—There were some splendid South American creepers; some plantain, from the Malagan Archipelago: the Pine of New Caledonia and the gigantic Adamsonia from the neighborhood of Gambia and Senegal.—To the north of the Botanic Garden, and separated from it by a plantation of teak trees, stands the New College, a fine building in the gothic style, and in a beautiful situation. This flourishing institution was founded by the "Society for the Propagation of the Gospel," under the management and at the suggestion of Bishop Middleton.—There are a number of native Female Schools in a very flourishing condition. We extract a notice of them from Bishop Heber's Journal.

I attended, together with a large portion of the European society of Calcutta, an examination of the native Female schools. **** It was very pretty to see the little swarthy children come forward to repeat their lessons and show their work, blushing even through their dark complexions, with their muslin veils thrown care-

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lessly round their slim half naked figures, their black hair plaited, their foreheads speckled with white or red paint, and their heads, necks, wrists and ankles loaded with all the little finery they could buy or borrow for the occasion. Their parents make no objection to their learning the Catechism, or being tempted to read the Bible, provided nothing is done which can make them lose caste. And many of the Brahmins themselves, either finding the current of popular opinion too strongly in favor of the measures pursued for them to struggle with, or really influenced by the beauty of the lessons taught in Scripture, and the advantage of giving useful knowledge, and something like a moral sense, to the lower ranks of their countrymen and countrywomen, appear to approve of the plan, and attend the examination of the scholars.

NATIONAL LITERATURE.

* * * "We are aware that some may think that we are exalting intellectual above moral and religious influence. They may tell us, that the teaching of moral and religious truth, not by philosophers and boasters of wisdom, but by the comparatively weak and foolish, is the great means of renovating the world. This truth we indeed regard as 'the power of God unto salvation.' But let none imagine that its chosen temple is an uncultivated mind, and that it selects, as its chief organs, the lips of the unlearned. Religious and moral truth is indeed appointed to carry forward mankind; but not as conceived and expounded by narrow minds, not as darkened by the ignorant, not as debased by the superstitious, not as subtilized by the visionary, not as thundered out by the intolerant fanatic, not as turned into a drivelling cant by the hypocrite. Like all other truths, it requires for its full reception and powerful communication a free and vigorous intellect. Indeed, its grandeur and infinite connexions demand a more earnest and various use of our faculties than any other subject. As a single illustration of this remark, we may observe, that all moral and religious truth may be re-

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duced to one great and central thought, Perfection of Mind; a thought which comprehends all that is glorious in the Divine nature, and which reveals to us the end and happiness of our own existence. This perfection has yet only dawned on the most gifted human beings, and the great purpose of our present and future existence is to enlarge our conceptions of it without end, and to embody and make them manifest in character and life. And is this sublime thought to grow within us, to refine itself from error and impure mixture, to receive perpetual accessions of brightness from the study of God, man, and nature, and especially to be communicated powerfully to others, without the vigorous exertion of our intellectual nature? Religion has been wronged by nothing more than by being separated from intellect; than by being removed from the province of reason and free research, into that of mystery and authority, of impulse and feeling. Hence it is, that the prevalent forms or exhibitions of Christianity are comparatively inert, and that most which is written on the subject is of little or no worth. Christianity was given, not to contradict and degrade the rational nature, but to call it forth, to enlarge its range and its powers. It admits of endless development. It is the last truth which should remain stationary. It ought to be so explored and so expressed, as to take the highest place in a nation's literature, as to exalt and purify all other literature. From these remarks it will be seen, that the efficacy which we have ascribed to literary or intellectual influence, in the work of human improvement, is consistent with the supreme importance of moral and religious truth."

* * * * * *

"We are not borne down by the weight of antiquated institutions, time-hallowed abuses, and the remnants of a religious establishment in an immense gain, as far as originality of mind is in the question; for an establishment, however advantageous in other respects, is, by its nature, hostile to discovery and progress. To keep the mind where it is, to fasten the notions of one age on all future time, is its aim and proper business; and if it happened, as has generally been the case, to grow up in an age of strife and passion, when, as history demon-

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strates, the church was overrun with error, it cannot but perpetuate darkness and mental bondage.—Among us, intellect, though far from being free, has broken some of the chains of other countries, and is more likely, we conceive, to propose to itself its legitimate object, truth, everlasting and universal truth.

"We have no thought of speaking contemptuously of the literature of the old world. It is our daily nutriment. We feel our debt to be immense to the glorious company of pure and wise minds, which in foreign lands have bequeathed us in writing their choicest thoughts and holiest feelings. Still we feel, that all existing literature has been produced under influences, which have necessarily mixed with it much error and corruption, and that the whole of it ought to pass, and must pass, under rigorous review. For example, we think that the history of the human race is to be rewritten. Men imbued with the prejudices which thrive under aristocracies and state religions, cannot understand it. Past ages, with their great events, and great men, are to undergo, we think, a new trial, and to yield new results. It is plain that history is already viewed under new aspects, and we believe that the true principles for studying and writing it are to unfolded here, at least as rapidly as in other countries. It seems to us that in literature an immense work is yet to be done. The most interesting questions to mankind are yet in debate. Great principles are yet to be settled in criticism, in morals, in politics; and above all, the true character of religion is to be rescued from the disguises and corruptions of ages. We want a reformation. We want a literature, in which genius will pay supreme, if not undivided homage, to truth and virtue; in which the childish admiration of what has been called greatness, will give place to a wise moral judgment; which will breathe reverence for the mind, and elevating thoughts of God. The part which this country is to bear in this great intellectual reform, we presume not to predict. We feel, however, that if true to itself, it will have the glory and happiness of giving new impulses to the human mind. This is our cherished hope. We should have no heart to encourage native literature, did we not hope that it would become instinct with a new spirit.

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We cannot admit the thought, that this country is to be only a repetition of the old world.—We delight to believe that God, in the fulness of time, has brought a new continent to light, in order that the human mind should move here with a new freedom, should frame new social institutions, should explore new paths, and reap new harvests. We are accustomed to estimate nations by their creative energies, and we shall blush for our country, if, in circumstances so peculiar, original, and creative, it shall satisfy itself with a passive reception and mechanical reiteration of the thoughts of strangers."

SCENES IN PALESTINE.

JERICHO.

With an Engraving.—See page. 339.

Jericho, which is at present a miserable village inhabited by half-naked Arabs, derives all its importance from history. It was the first city which the Israelites reduced upon entering the Holy Land. Five hundred and thirty years afterward it was rebuilt by Heliel of Bethel, who succeeded in restoring its population, its splendor, and its commerce; in which flourishing condition it appears to have continued during several centuries. Mark Antony, in the pride of power, presented to Cleopatra the whole territory of Jericho. Vespasian, in the course of the sanguinary war which he prosecuted in Judea, sacked its walls, and put its inhabitants to the sword. Re-established by Adrian in the 138th year of our faith, it was doomed at no distant era to experience new disasters. It was again repaired by the Christians, who made it the seat of a bishop; but in the twelfth century it was overthrown by the infidels, and has not since emerged from its ruins. Of all its magnificent buildings there remain only the part of one tower, supposed to be the dwelling of Zaccheus the publican, and a quantity of rubbish, which is understood to mark the line of its ancient walls.

Mr. Buckingham saw reason to believe that the true

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site of Jericho, as described by Josephus, was at a greater distance from the river than the village of Rahhah, commonly supposed to represent the City of Palms. Descending from the mountains which bound the valley on the western side, he observed the ruins of a large settlement, covering at least a square mile, whence, as well as from the remains of aqueducts and fountains, he was led to conclude that it must have been a place of considerable consequence. Some of the more striking objects among the wrecks of this ancient city were large tumuli, evidently the work of art, and resembling those of the Greek and Trojan heroes on the plains of Ilium. There were, besides, portions of ruined buildings, shafts of columns, and a capital of the Corinthian order; tokens not at all ambiguous of former grandeur and of civilized life.

Josephus fixes the position of Jericho at the distance of one hundred and fifty furlongs from Jerusalem, and sixty from the river Jordan; stating that the country, as far as the capital, is desert and hilly, while to the shores of the Lake Asphaltites it is low, though equally waste and unfruitful. Nothing can apply more accurately, in all its particulars, than this description does to the ruins just mentioned. The spot lies at the very foot of the sterile mountains of Judea, which may be said literally to overhang it on the west; and these ridges are still as barren, as rugged, and as destitute of inhabitants as formerly, throughout the whole extent, from the Lake of Tiberias to the Dead Sea. The distance, by the computation in time, amounted to six hours, or nearly twenty miles, from Jerusalem; the space between the supposed city and the river being little more than one-third of that amount, the precise proportion indicated by the Jewish historian.

The soil round Jericho was long celebrated for a precious balsam, which used to be sold for double its weight of silver. The historian Justin relates, that the trees from which it exudes bear a resemblance to firs, though they are lower, and are cultivated after the manner of vines. He adds, that the wealth of the Jewish nation arises from their produce, as they grow in no other part of Syria. At present, however, there is not a tree of any description, either palm or balsam, to be seen near

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the site of this deserted town; but it is admitted, that the complete desolation with which its ruins are invested ought to be attributed to the cessation of industry rather than to any perceptible change either in the climate or the soil.

Rahhah stands about four miles nearer the river, or about half-way between the assumed position of Jericho and the bend of the current. It consists of about fifty dwellings, all very mean in their appearance, and every one fenced in front with thorny bushes; one of the most effectual defences that could be raised against the incursions of the Bedouins, whose horses will not approach these formidable thickets. The inhabitants, without exception, are professed believers in the creed of Islamism. Their habits are those of shepherds rather than of cultivators of the soil; this last duty, indeed, when performed at all, being done chiefly by the women and children, as the men roam the plain on horseback, and derive the principal means of subsistence from robbery and plunder. They are governed by a sheik, whose influence among them is more like the authority of a father over his children than that of a magistrate; and who is, moreover, checked in the exercise of his power, by the knowledge that he would instantly be deprived of life and station were he to exceed the bounds which, in all rude countries, are opposed even to the caprices of despotism. It is remarkable that the name of this village corresponds to Rahab, the name of the hostess who received into her house the Hebrew spies, and signifies odour or perfume; the slight change on the form of the Arabic term implying no difference in the import of the root whence they are both originally derived.

The mountains on the eastern side of the Jordan are more lofty than those which skirt the Vale of Jericho, being not less than 2000 feet in height. From the summit of a towering peak, which the traveller still delights to recognize, Moses was permitted to behold the promised inheritance, stretching towards the west, the south, and the north.—"All the land of Gilead unto Dan, and all Naphtali, and the land of Ephraim, and Manasseh, and all the land of Judah unto the utmost sea, and the south, and the plain of the Valley of Jeri-

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cho, the city of palm-trees, unto Zoar. And the Lord said unto him, this is the land which I swear unto Abraham, unto Isaac, and unto Jacob, saying, I will give it unto thy seed; I have caused thee to see it with thine eyes, but thou shalt not go over thither. So Moses, the servant of the Lord, died there, in the land of Moab, according to the word of the Lord. And he buried him in a valley in the land of Moab, over against Beth-peor: but no man knoweth of his sepulchre unto this day."

The road from Jericho to Jerusalem presents some historical reminiscences of the most interesting nature. When entering the mountains which protect the western side of the plain, the attention of the traveller is invited to the Fountain of Elisha, the waters of which were sweetened by the power of the prophet. The men of Jericho represented to him that though the situation of the town was pleasant, "the water was naught, and the ground barren. And he said, bring me a new cruse, and put salt therein: and they brought it to him. And he went forth unto the spring of the waters, and cast the salt in there, and said, thus said the Lord, I have healed these waters; there shall not be from thence any more death or barren land. So the waters were healed unto this day, according to the saying of Elisha which he spake."

Its waters are at present received in a basin about nine or ten paces long, and five or six broad; and from thence, issuing out in good plenty, divide themselves into several small streams, dispersing their refreshment to all the land as far as Jericho, and rendering it exceedingly fruitful. Advancing into the savage country through which the usual road to the capital is formed, the tourist soon finds himself at the foot of the mountain called Quarantina, from being the supposed scene of the temptation and fast of forty days endured by our Saviour, who

> ——"looking round on every side, beheld
> A pathless desert dusk with horrid shades:
> The way he came not having marked, return
> Was difficult, by human steps untrod;
> And he still on was led, but with such thoughts
> Accompanied of things past and to come
> Lodg'd in his breast, as well might recommend
> Such solitude before choicest society.

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The neighborhood of this lofty eminence is according to Mr. Maundrell, a dry, miserable, barren place; consisting of high rocky mountains, so torn and disordered, "as if the earth had here suffered some great convulsion, in which its very bowels had been turned outward." In a deep valley are seen the ruins of small cells and cottages, thought to be the remains of those sequestered habitations to which hermits were wont to retire for the use of penance and mortification; and it is remarked that, in the whole earth, a more comfortless and desert place could not have been selected for so pious a purpose. From these hills of desolation, however, there is obtained a magnificent prospect of the plain of Jericho, the Dead Sea, and of the different summits of Arabia; for which reason the highest of the group has been assigned by tradition as the very spot whence all the kingdoms of the world were seen in a moment of time. It is, as St. Matthew styles it, an exceeding high mountain, and in its ascent not only difficult but dangerous. It has a small chapel at the top, and another about half-way down, founded upon a projecting part of the rock. Near the latter are observed several caves and holes, excavated by the solitaries, who thought it the most suitable place for undergoing the austerities of Lent,—a practice which has not even at the present day fallen altogether into disuse. Hasselquist describes the path as "dangerous beyond imagination. I went as far up on this terrible mountain of Temptation as prudence would admit, but ventured not to go to the top; whither I sent my servant, to bring what natural curiosities he could find, while I gathered what plants and insects I could find below."

Mariti, whose religious zeal was fanned into a temporary flame, ascended the formidable steep as far as the grottoes, which he delineates with much minuteness. He pronounces the chapel inaccessible from the side on which he stood, and is very doubtful whether it could now be approached on any quarter, the ancient road being so much neglected. But it should seem that most travellers are smitten with the feeling which seized the breast of Maundrell, although they all have not the candor to acknowledge it. Alluding to the Arabs, who demanded a sum of money for liberty to ascend, he says,

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" we departed without further trouble, and a little glad to have so good an excuse for not climbing so dangerous a precipice."

The imagination of Milton has thrown a captivating splendor around the scene, which, at the same time, he appears to have transferred to the mountain-range beyond the Jordan in the country of the Moabites.

> "Thus wore out night; and now the herald lark
> Left his ground-nest, high towering to descry
> The morn's approach, and greet her with his song
> As lightly from his grassy couch up rose
> Our Saviour, and found all was but a dream;
> Fasting he went to sleep, and fasting waked.
> Up to a hill anon his steps he reared,
> From whose high top to ken the prospect round,
> If cottage were in view, sheepcote, or herd;
> But cottage, herd, or sheepcote, none he saw;
> Only in a bottom saw a pleasant grove,
> With chant of tuneful birds resounding loud:
> Thither he bent his way; determined there
> To rest at noon, and entered soon the shade
> High roofed, and walks beneath, and alleys brown,
> That opened in the midst a woody scene."

Leaving the Quarantina with its dreary scenes and solemn recollections, the pilgrim returning from the Jordan finds himself on a beaten path which, since the days of Moses, it is probable has connected the rocks of Salem with the banks of the sacred river. Chateaubriand informs us that it is broad, and in some parts paved; having undergone, as he conjectures, several improvements since the country was in possession of the Romans. On the top of a mountain there is the appearance of a castle, while, we may conclude, was meant to protect and command the road; and at a little distance, in the bottom of a deep gloomy valley is the Place of Blood, called in the Hebrew tongue Abdomim, where once stood a small town belonging to the tribe of Judah, and where the good Samaritan is imagined to have succored the wounded traveller who had fallen into the hands of thieves. That sombre dell is still entitled to its horrible distinction; it is still the place of blood, of robbery, and of murder; the most dangerous pass for him who undertakes to go down from Jerusalem to Jericho.

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As a proof of this, we may shortly mention an assault which was made upon Sir F. Henniker, who a few years ago resolved to accomplish that perilous journey. "The route is over hills, rocky, barren, and uninteresting. We arrived at a fountain, and here my two attendants paused to refresh themselves; the day was so hot that I was anxious to finish the journey, and hasten forwards. A ruined building, situated on the summit of a hill, was now within sight, and I urged my horse towards it; the Janizary galloped by me, and making signs for me not to precede him, he himself rode into and round the building, and then motioned me to advance. We next came to a hill, through the very apex of which has been cut a passage, the rocks overhanging it on either side. I was in the act of passing through this ditch when a bullet whizzed by close to my head. I saw no one, and had scarcely time to think when another was fired, some short distaece in advance. I could yet see no one; the janizary was beneath the brow of the hill in his descent. I looked back, but my servant was not yet within sight. I looked up, and within a few inches of my head were three muskets, and three men taking aim at me. Escape or resistance was alike impossible. I got off my horse. Eight men jumped down from the rocks, and commenced a scramble for me.—As he (the Janizary) passed, I caught at a rope hanging from his saddle; I had hoped to leap upon his horse, but found myself unable; my feet were dreadfully lacerated by the honeycombed rocks; nature would support me no longer; I fell, but still clung to the rope; in this manner was drawn some few yards, till, bleeding from my ankle to my shoulder, I resigned myself to my fate. As soon as I stood up one of my pursuers took aim at me; but the other, casually advancing between us, prevented his firing. He then ran up, and with his sword aimed such a blow as would not have required a second; his companion prevented its full effect, so that it merely cut my ear in halves, and laid open one side of my face: they then stripped me naked."

It is impossible not to suspect that the depraved government at Jerusalem connives at such instances of violence in order to give some value to the protection which they sell at a very dear rate to Christian travel-

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iers. The administration of Mohammed Ali would be a blessing to Palestine, inasmuch as it would soon render the intercourse between the capital and the Dead Sea as safe as that between Alexandria and Grand Cairo.

CATARACT OF THE NILE.

With an Engraving.—See page. 353.

The following description of this great Cataract on the river Nile, or as it is sometimes called the Cataract of Alata, is taken from the travels of Mr. Bruce:

The first thing our traveller was shown was the bridge, which consists of one arch of about 25 feet broad. Fragments of the parapets remained, and the bridge itself, seemed to bear the appearance of frequent repairs, and many attempts having been made to ruin it: otherwise, in its construction, it was exceedingly well designed. The Nile here is confined between two rocks, and runs in a deep trough with great roaring and impetuos velocity.—Leaving the bridge he passed up the stream above half a mile before he came to the Cataract, through trees and bushes of a delightful appearance.

The Cataract itself was the most magnificent sight that Mr. Bruce had ever beheld. The height has been rather exaggerated; the measuring is indeed very difficult, but by the position of long sticks and poles of different lengths and different heights of the rock, he thinks that it is about 40 feet from the water's edge. The river had been considerably increased by rains, and fell in one sheet above half an English mile in breadth, with a force and noise that was truly terrible; and which stunned and made him for a time excessively dizzy. A thick fume or haze covered the fall all around, and hung over the course of the river, both above and below, marking its track, though the water was not seen. The river, though swelled with rain, preserved its natural smoothness, and at a distance, far as the eye could discern, fell in a deep pool or basin; the stream when it fell, seeming part of it to ran back with great fury upon the rock.

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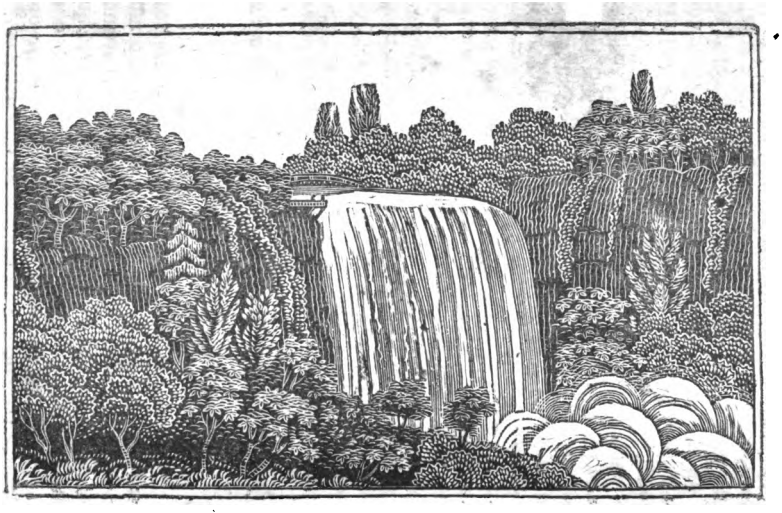

CATARACT OT THE NILE.

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Mr. Bruce observes, the sight was so imposing, that ages added to the greatest length of human life, would not eradicate it from his memory; it struck him with a kind of stupor, and a total forgetfulness of where he was, and indeed, for a time, of every other consideration.

We can readily imagine the feelings of our traveller on his first view of this stupendous work of nature. A scene at once so awfully sublime—so magnificent to the sight, and so fearfully astounding to the hearing, is calculated to overwhelm the mind with an unutterable awe, and indeed so to confuse and disarrange the ideas, as to render contemplation utterly impracticable.

PURSUITS OF KNOWLEDGE UNDER DIFFICULTIES ILLUSTRATED BY ANECDOTES.

Self-educated Men continued.—Pursuits of Knowledge and Business united Cicero; Sir William Jones.

The cultivation of science and literature has often been united with the most active and successful pursuit of business, and with the duties of the most laborious professions. It has been said of Cicero, that, "no man whose life had been wholly spent in study, ever left more numerous or more valuable fruits of his learning in every branch of science and the polite arts—in oratory, poetry, philosophy, law, history, criticism, politics, ethics: in each of which he equalled the greatest masters of his time; in some of them excelled all men of all times. His remaining works, as voluminous as they appear, are but a small part of what he really published. His industry was incredible, beyond the example or even conception of our days: this was the secret by which he performed such wonders, and reconciled perpetual study with perpetual affairs. He suffered no part of his leisure to be idle, or the least interval of it to be lost." These are the words of his learned and eloquent biographer, Dr. Middleton. He says himself, in one of his orations—"What others give to their own affairs, to the public shows and other entertainments, to festivity, to amusement, nay even to mental and bodily rest, I give to study and philosophy." He tells us, too, in his

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letters, that on days of business when he had any thing particular to compose, he had no other time for meditating but when he was taking a few turns in his walks, where he used to dictate his thoughts to his amanuenses, or scribes, who attended him. His letters afford us, indeed, in every way, the most remarkable evidence of the active habits of his life. Those that have come down to us are all written after he was forty years old; and, although many of course are lost, they amount in number to a thousand. "We find many of them," says Middleton, dated before daylight; some from the senate; others from his meals, and the crowd of morning levee." "For me," he himself exclaims, addressing one of his friends, "*ne otium quidem unquam otiosum* —even my leisure hours have their occupation."

In modern times the celebrated Sir William Jones afforded the world, in this respect, a like example. We have already mentioned his wonderful attainments in languages. All his philosophical and literary studies were carried on among the duties of a toilsome profession, which he was, nevertheless, so far from neglecting, that his attention to all its demands upon his time and faculties constituted one of the most remarkable of his claims to our admiration. But he was from his boyhood a miracle of industry, and shewed, even in earliest years, how intensely his soul glowed with the love of knowledge. He used to relate that, when he was only three or four years of age, if he applied to his mother, a woman of uncommon intelligence and acquirements, for information upon any subject, her constant answer to him was, "Read, and you will know." He thus acquired a passion for books, which only grew in strength with increasing years. Even at school his voluntary exertions exceeded in amount his prescribed tasks; and Dr. Thackeray, one of his masters, was wont to say of him, that he was a boy of so active a mind, that if he were left naked and friendless on Salisbury Plain, he would, nevertheless, find the road to fame and riches. At this time he was frequently in the habit of devoting whole nights to study, when he would generally take coffee or tea, to keep off sleep. He had, even already, merely to divert his leisure, commenced his study of the law; and it is related that he would often amuse and

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surprise his mother's legal acquaintances, by putting cases to them from an abridegment of Coke's Institutes, which he had read and mastered. In after life his maxim was never to neglect any opportunity of improvement which presented itself.

In India, where he filled the office of Judge in the Supreme Court of Bengal, and where his professional duties were of the most laborious nature, he contrived to do more than ever in the study of general literature and philosophy. He had scarcely arrived in the country when he exherted himself to establish a society in Calcutta, on the model of the Royal Society of London, of which he officiated as president as long as he lived, enriching its Transactions every year with the most elaborate and valuable disquisitions on every department of oriental philology and antiquities. Almost his only time for study now was during the vacation of the courts; and here is the account, as found among his papers, of how he was accustomed to spend his day during the long vacation in 1785. In the morning, after writing one letter, he read ten chapters of the Bible, and then studied Sanscrit grammar and Hindoo law; the afternoon was given to the geography of India, and the evening to Roman history; when the day was closed by a few games at chess, and the reading of a portion of Ariosto. Already, however, his health was beginning to break down under the climate; and his eyes had become so weak, that he had been obliged to discontinue writing by candle-light. But nothing could prevent him from pursuing the studies he loved, while any strength remained to him. Even while confined by illness to his couch, he taught himself botany; and it was during a tour he was advised to take for the recovery of his health, that he wrote his learned Treatise on the Gods of Greece, Italy, and India—as if he had actually so disciplined his mind, that it adopted labor like this almost for a relaxation His health, after a time, was partially restored; and we find him again devoting himself both to his professional duties and his private studies, with more zeal and assiduity than ever. When business required his attendance daily in Calcutta, he resided at a country-house on the banks of the Ganges, almost five miles from the city. "To this

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spot," says his amiable and intelligent biographer, Lord Teignmouth, "he returned every evening after sunset, and in the morning rose so early as to reach his apartments in town, by walking, and at the first appearance of dawn. The intervening period of each morning, until the opening of court, was regularly allotted and applied to distinct studies." At this time, his hour of rising used to be between three and four. During the vacation of the court he was equally occupied. Writing from Crishna, his vacation residence, in 1787, he says, "We are in love with this pastoral cottage; but though these three months are called a vacation, yet I have no vacant hours. It rarely happens that favorite studies are closely connected with the strict discharge of our duty, as mine happily are: even in this cottage I am assisting the court by studying Arabic and Sanscrit, and have now rendered it an impossibility for the Mahometan or Hindoo lawyers to impose upon us with erroneous opinions." It was these constant exertions, in truth, that gave its chief enjoyment to his life. "I never was happy," he says in this very letter, "till I was settled in India."

This eminent and admirable man, however, at last fell a sacrifice to his zeal in the discharge of his duty; and if it has been accounted a befitting fate for a great captain to die in the field of battle, surely his is to be deemed an equally appropriate and a far more enviable lot who, after a life, whether of many or of few years, in which he has done enough for his fame, sinks to his rest in the full brightness of a career made glorious by many peaceful triumphs. The greatest literary achievement of Sir William Jones was his last—the digest he undertook to superintend of a complete body of Hindoo and Mahometan jurisprudence.

It was by a persevering observance of a few simple maxims that Sir William Jones was principally enabled to accomplish what he did. One of these, as we have already mentioned, was never to neglect an opportunity of improvement: another was, that whatever had been attained was attainable by him, and that, therefore, the real or supposed difficulties of any pursuit formed no reason why he should not engage in it, and with perfect confidence of success. "It was also," Lord Teign-

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mouth tells us, "a fixed principle with him, from which he never voluntarily deviated, not to be deterred, by any difficulties which were surmountable, from prosecuting to a successful termination what he had once deliberately undertaken." "But what appears to me," adds his Lordship, "more particularly to have enabled him to employ his talents so much to his own and the public advantage, was the regular allotment of his time to particular occupations, and a scrupulous adherence to the distribution which he had fixed: hence all his studies were pursued without interruption or confusion. Nor can I omit remarking the candour and complacency with which he gave his attention to all persons, of whatever quality, talents, or education: he justly concluded that curious or important information might be gained even from the illiterate; and, whatever it was to be obtained, he sought and seized it." By these methods it was that he accumulated that vast mass of knowledge, and enabled himself to accomplish those profound and extended labors, which remain, even now that he is dead, for the benefit of us who live, and of those who are to come after us. This is truly to make a short life long—to exist, in spite of death, for unnumbered generations.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

THE EARTH.

The circumference of this globe is computed to be 25,000 miles, and it revolves once on its axis in 24 hours, consequently any one spot on it, is carried round 25,000 miles in that space of time, which is upwards of 1040 miles in an hour, or 173 miles in one minute! Vast as this may seem, and in comparison of which the utmost degree of velocity which man has been able to produce by the most ingenious contrivances, sinks almost into nothing; yet when put in competition with the amazing velocity of the earth in its orbit, this of its diurnal revolution on its axis, (though indeed astonishingly great) is trifling and insignificant.

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The distance of the sun from the earth is 195,000,000 miles, which being the radius of the earth's orbit, we shall have its diameter, 390,000,000 miles, and consequently the circumference 1225,000,000. Now as the earth revolves round the sun once in 365 days—it would travel (dividing 1225,000,000 by 365) about 3,369,000 miles in one day, or 140,000 in an hour. By this calculation we shall find that the earth is whirled through the immense regions of space, at the amazing, the inconceivable volocity of 2330 miles in a single minute of time!

Astonishing as this fact is, yet when compared with those things which have come more immediately under our observation, it is by no means irreconcileable. Those who know with what rapidity the blood is driven from the heart to the extremities of the human system, and reflect that this rapidity is no greater than is actually necessary for the health and support of the body, may conceive with what velocity such vast bodies as this and other surrounding worlds must be impelled in their course, in order that they, as the several various members which constitute the great system of nature, may be kept in their respective spheres, in a state of health, regularity and order.—For, as an ingenious poet expresses himself:—

> "Constant rotation of th' unwearied wheel,
> That nature rides upon, maintains her health,
> Her beauty, her fertility.—She dreads
> An instant's pause, and lives but while she moves."

POETRY.

STANZAS

BY MISS MARY ANNE BROWNE.

Come to the fields and woods!
  The spring is breathing o'er the land
The flowers within the solitudes
  Rise up, a beauteous band.
The hearth, the hot hearth scorn;
  Come to the fields by day, by night—
By day fair flowers the earth adorn,
  And stars the heavens by night;
Come, for all is soft and fair:
The power of God is present there.

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Come on the glittering sea;
The waves are lulled in quiet sleep
Only a ripple, mild and free,
Is on the murmuring deep.
Our bark shall glide along,
As if upborne on summer's breeze,
As softly as the night-bird's song
Floats through the forest trees.
Come and adore the gracious peace
That biddeth angry tempests cease.

Come to the towering hill!
Look all around thee, and below,
Mark the calm wanderings of the rill,
And the distant ocean's flow.
Look on the sunset clouds
That as yet hold the infant thunder,
In those dark silver-edged shrouds,
The lightning soon will rend asunder,
Come, and in that crimson fire
The Lord of clouds and storms admire.

Come to the bed of death!
Step lightly—check that rising sigh;
Behold the parting of the breath
Without an agony.
Behold how softly fades
The light and glory in that eye,
As gently as the twilight shades
The azure of the sky.
Come, and bow in thankfulness
To Him who life's last hour can bless.

THE BROOK KEDRON.

"*He went over the brook, Kedron, with his disciples.*"—St. John.

The Vale of thy Brook, of Life's valley so drear,
Meet emblem, dark Kedron, might be,
As it swelled in its hurried and horrid career
To the depths of a desolate sea:
Unceasingly fed with the blood of the slain
From the Temple's far height was its flow,
Till it seemed like some wounded and wandering vein
That was lost in the distance below.

There David went over, and wept as he went;
There his Son in his sorrow passed o'er,
And his garments were dipt in its crimson descent,
Like a warrior's wading in gore;

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And wrapt in forbodings of anguish and wo,
It heightened that vision of pain.
When the blood of a mightier Victim should flow
And the Lamb of the promise be slain.

Now, Kedron, for ages thy course has been dried,
And thy sands are unmarked with a stain,
Since the Victim ordained from eternity died
And the Lamb of the promise was slain;
The pilgrim now passes dry-shod o'er thy bed,
And the thought to his spirit may lay,
He who drank of the brook hath re-lifted his head,
And hath borne our transgressions away!

ON THE IMMORTALITY OF THE SOUL.

Thron'd on eternity—in realms of light
Unpierc'd by man's corporeal eye,
Sits tranquil Immortality;
And there shall veil her face from mortal sight,
Till time's swift pinion'd hours no more their courses keep.
Friend of the virtuous—terror of the bad,
'T is her's to make the upright bosom glad,
And snatch from Vice the hope, that Death's an endless sleep.

Oh you! who grasp Heaven's bolts with daring hand,
O'erturn her altars, and her laws withstand,
To reign detested tyrants through the land;
Tremble—for you have souls that are immortal;
And you, their hapless victims are below,
On whom God deigns his pitying eye to throw,
Poor wandering pilgrims through this world of wo,
Be comforted—for you, too, are immortal

Upon the mountain's distant head,
With trackless snows forever white,
Where all is still, and cold, and dead,
Late shines the day's departing light

'Tis thus, from warm and kindly hearts
And eyes were generous meanings burn,
Earliest the light of life departs,
But lingers with the cold and stern.

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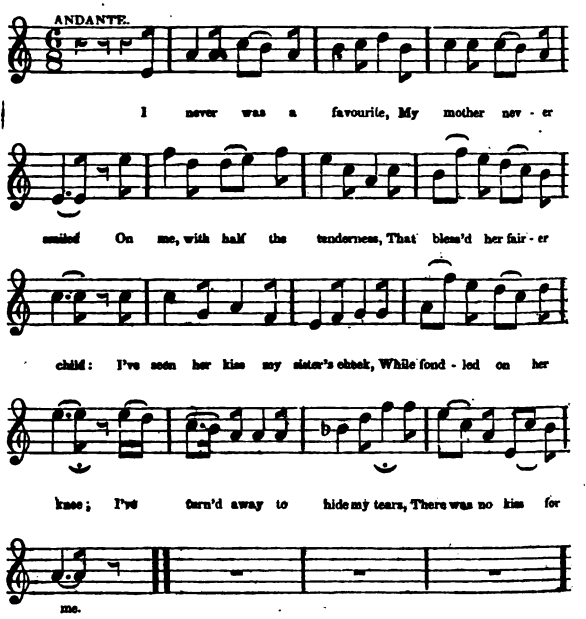
THE NEGLECTED CHILD.

The Poetry by Thomas H. Bayly, Esq.—The music by Adolph Schmitz.

ANDANTE.
I never was a favourite, My mother nev - er
smiled On me, with half the tenderness, That bless'd her fair - er
child: I've seen her kiss my sister's cheek, While fond - led on her
knee; I've turn'd away to hide my tears, There was no kiss for
me.

2 And yet I strove to please, with all
My little store of sense;
I strove to please, and infancy
Can rarely give offence:
But when my artless efforts met
A cold ungentle check,
I did not dare to throw myself
In tears upon her neck.

3 How blessed are the beautiful,
Love watches o'er their birth;
Oh beauty! in my nursery
I learned to know thy worth;
For even there I often felt
Forsaken and forlorn;
And wished—for others wished it too—
I never had been born.

4 But soon a time of triumph came,—
A time of sorrow too,—
For sickness o'er my sister's form
Her venom'd mantle threw:
The features once so beautiful,
Now wore the hue of death;
And former friends shrank fearfully
From her infectious breath.

5 'Twas then, unwearied, day and night
I watched beside her bed,
And fearlessly upon my breast
I pillowed her poor head.
She lived—she loved me for my care—
My grief was at an end;
I was a lonely being once,
But now I have a friend.

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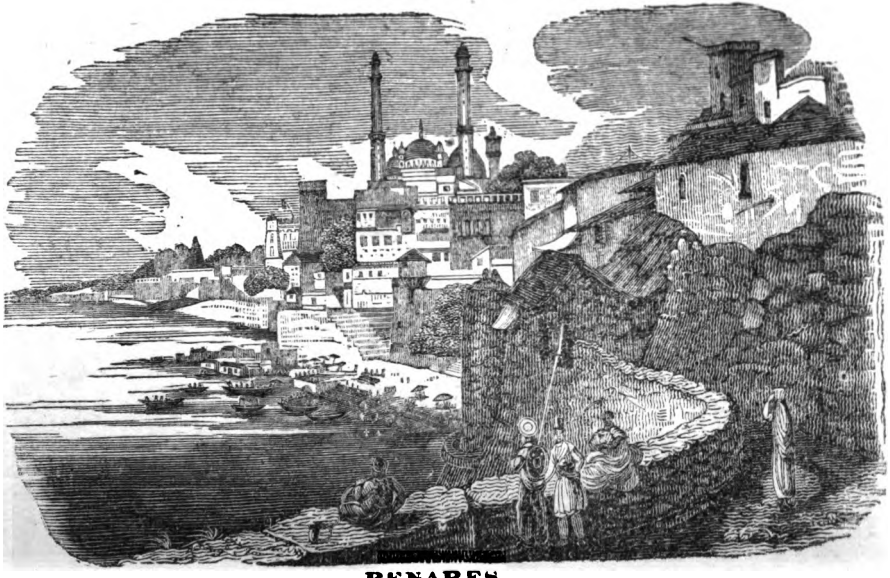

BENARES.

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THE

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Entertaining Knowledge.

VOL. III. APRIL, 1833. No. 11.

BENARES.

The city of Benares stands on the left bank of the Ganges, at a part where the river forms a fine sweeping curve of nearly four miles in length. The bank on which the city is situated is the concave side of the river, and is considerably higher than the opposing shore; so that if the town is viewed from a position in the upper part of it, from the breadth of the Ganges at this place, and the lowness of the opposite side, it has the appearance of standing on the margin of a beautifully formed bay.

Benares stands on a spot held peculiarly sacred by the Hindoos, and it has long been considered as the head quarters of brahminical learning.

The edifice, with the high minarets so conspicuous in the annexed sketch, was built by the Mohammedan emperor, Aurungzebe, it is said with the intention of humbling the pride of the Hindoos, as not only possessing a very elevated station in the city, but being also erected on the site of a Hindoo temple, removed on purpose to make room for the Mussulman mosque.

The immense flight of steps called the Ghauts of Benares, form a great ornament to the river face of the city. Various Christian missionaries are now laboring in this city.

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THE ADVANTAGES OF A TASTE FOR THE BEAUTIES OF NATURE.

By Dr. Percival.

That sensibility to beauty, which, when cultivated and improved, we term taste, is universally diffused through the human species; and it is most uniform with respect to those objects, which, being out of our power, are not liable to variation, from accident, caprice, or fashion. The verdant lawn, the shady grove, the variegated landscape, the boundless ocean, and the starry firmament, are contemplated with pleasure by every attentive beholder.—But the emotions of different spectators, though similar in kind differ widely in degree: and to relish, with full delight, the enchanting scenes of nature, the mind must be uncorrupted by avarice, sensuality, or ambition; quick in her sensibilities, elevated in her sentiments, and devout in her affections. He who possesses such exalted powers of perception and enjoyment, may almost say with the poet:—

"I care not, fortune, what you me deny:
You cannot rob me of free nature's grace;
You cannot shut the windows of the sky,
Through which Aurora shows her bright'ning face;
You cannot bar my constant feet to trace
The woods and lawns, by living streams, at eve:
Let health my nerves and finer fibres brace,
And I their toys to the great children leave:
Of fancy, reason, virtue, nought can me bereave!"

Perhaps such ardent enthusiasm may not be compatible with the necessary toils and active offices which Providence has assigned to the generality of men. But there are none to whom some portion of it may not prove advantageous; and if it were cherished by each individual in that degree which is consistent with the indispensable duties of his station, the felicity of human life would be considerably augmented. From this source the refined and vivid pleasures of the imagination are almost entirely derived, and the elegant arts owe their choicest beauties to a taste for the contemplation of nature. Painting and sculpture are express imitations of visible objects: and where would be the charms of poetry, if divested of the

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imagery and embellishments which she borrows from rural scenes? Painters, statuaries, and poets, therefore, are always ambitious to acknowledge themselves the pupils of nature; and as their skill increases, they grow more and more delighted with every view of the animal and vegetable world. But the pleasure resulting from admiration is transient; and to cultivate taste without regard to its influence on the passions and affections, "is to rear a tree for its blossoms which is capable of yielding the richest and most valuable fruit." Physical and moral beauty bear so intimate a relation to each other, that they may be considered as different gradations in the scale of excellence; and the knowledge and relish of the former should be deemed only a step to the nobler and more permanent enjoyments of the latter.

Whoever has visited the Leasowes, in Warwickshire, must have felt the force and propriety of an inscription which meets the eye at the entrance into these delightful grounds:—

"Would you, then, taste the tranquil scene?
Be sure your bosom be serene;
Devoid of hate, devoid of strife,
Devoid of all that poisons life:
And much it 'vails you, in this place
To graft the love of human race."

Now such scenes contribute powerfully to inspire that serenity which is necessary to enjoy and to heighten their beauties. By a sweet contagion the soul catches the harmony which she contemplates; and the frame within assimilates itself to that which is without. For,

"Who can forbear to smile with nature?
Can the strong passions in the bosom roll,
While every gale is peace, and every grove
Is melody?"

In this state of composure we become susceptible of virtuous impressions from every surrounding object; an equal and extensive benevolence is called forth into exertion; and having felt a common interest in the gratifications of inferior beings, we shall be no longer indiffer-

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ent to their sufferings, or become wantonly instrumental in producing them.

It seems to be the intention of Providence that the lower order of animals should be subservient to the comfort, convenience, and sustenance of man. But his right of dominion extends no farther; and if this right be exercised with mildness, humanity, and justice, the subjects of his power will be no less benefited than himself; for various species of living creatures are annually multiplied by human art, improved in their perceptive powers by human culture, and plentifully fed by human industry.

The relation, therefore, is reciprocal between such animals and man; and he may supply his own wants by the use of their labour, the produce of their bodies, and even the sacrifice of their lives; while he co-operates with all-gracious Heaven in promoting happiness, the great end of existence.

But though it be true that partial evil, with respect to different orders of sensitive beings, may be universal good, and that it is a wise and benevolent institution of nature, to make destruction itself, within certain limits, the cause of an increase of life and enjoyment; yet a generous person will extend his compassionate regards to every individual that suffers for his sake; and while he sighs,

> "Even for the kid, or lamb that pours its life
> Beneath the bloody knife."

he will naturally be solicitous to mitigate pain, both in duration and degree, by the gentlest mode of inflicting it.

I am inclined to believe, however, that this sense of humanity would soon be obliterated, and that the heart would grow callous to every soft impression, were it not for the benignant influence of the smiling face of nature. The Count de Lauzan, when imprisoned by Louis XIV, in the castle of Pignerol, amused himself for a long period of time with catching flies, and delivering them to be devoured by a rapacious spider. Such an entertainment was equally singular and cruel, and inconsistent, I believe, with his former character and subsequent turn of mind. But his cell had no window, and received only a glimmer-

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ing light from an aperture in the roof. In less unfavorable circumstances, may we not presume that instead of sporting with misery, he would have released the agonized flies, and bid them enjoy that freedom of which he himself was bereaved?

But the taste for natural beauty is subservient to higher purposes than those which have been enumerated; and the cultivation of it not only refines and humanizes, but dignifies and exalts the affections. It elevates them to the admiration and love of that being who is the author of all that is fair, sublime, and good in the creation.—Skepticism and irreligion are hardly compatible with the sensibility of heart which arises from a just and lively relish of the wisdom, harmony, and order, subsisting in the world around us; and emotions of piety must spring up spontaneously in the bosom that is in unison with all animated nature. Actuated by this Divine inspiration, man finds a fane in every grove; and, glowing with devout fervor, he joins his song to the universal chorus, or muses the praise of the Almighty in more expressive silence. Thus they

> "Whom nature's works can charm, with God himself
> Hold converse; grow familiar, day by day,
> With his conceptions; act upon his plan,
> And form to his, the relish of their souls."

LINES

Suggested by FULLER's account of the venerable BEDE and his Secretary translating the last verses of St. John's Gospel.

LOOK on that boy, and saintly pale old man!
Upon the holy text their eyes are bent;
With what divine expression, how intent,
The open roll how eagerly they scan!
But now the old man speaks in faltering tone,
He seems to swoon, films overspread his eyes—
"Rouse thee, my master, rouse thee," the boy cries,
"There's yet but a few lines, the task is done."—
Thereto the old man musters a strong heart,
And at the blessed roll applies once more,
As if he knew he might not yet depart,
He might not go till his great task was done.
Thou, christian lab'rer, shalt immortal be,
Till thou hast done what God appoints to thee. E. L. A.

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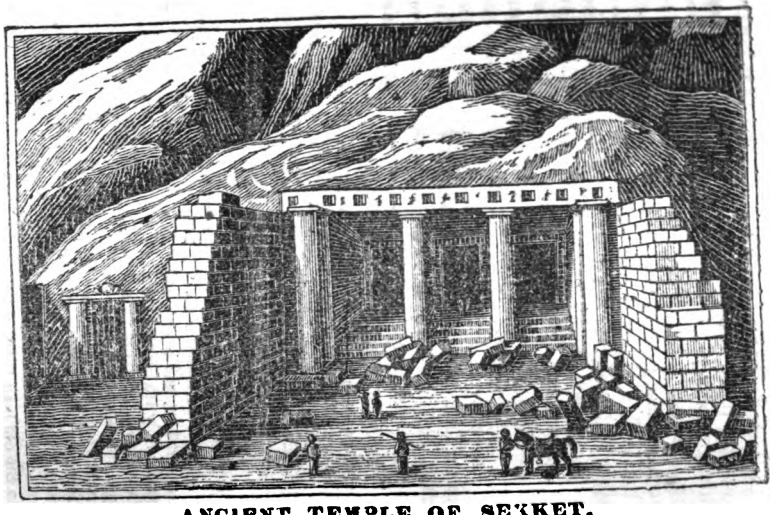

ANCIENT TEMPLE OF SEKKET.

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ANCIENT TEMPLE OF SEKKET.

The town of Sekket, to the north of which the above temple is situated, is an ancient town in Egypt, erected on the slope of two opposite mountains. A wide road, which at times becomes the channel to a torrent, separates it in the middle. The ancient ruins cover a space of about a quarter of a league in length; as to the style of the modern houses they are well built, though of rough stone, and talc, of the same nature of the mountain.—Very few are found with one story; the windows and doors are very small, numbers of them stand detached, and are banked or embanked against the mountain.—There is generally one large room for entrance, and four smaller ones in which stone benches have often been placed; in the interior is a small cellar cut in the rock, the pavement or flooring is of stone, roughly executed.—The roofs of the building have been destroyed. The town was doubtless designed for the workmen in the Emerald mines, which lie not far from this town, and which the ancient Egyptians used to work.

A little to the north of this town, are two temples cut out of the solid rock of the mountain. The rocks which compose the mountain consists principally of talc, which is a kind of a soft rock having a shining appearance. This engraving is a representation of the largest of these temples, which has four exterior columns and two others on the frontispiece that decorate the entrance. To arrive at the interior we first ascend a stair case, and farther on are three steps to penetrate into the sanctuary, at the side are two little saloons, one of which contains an isolated altar in the middle. In the sanctuary is another larger altar. Outside of the temple to the right and left, are two little sanctuaries in front of the whole building. In the engraving there is only one of them to be seen. At the entrance are two columns, the cornice over it is ornamented with a globe and two serpents. The subject is Egyptian, but the sepulchre is evidently Grecian. In the temple is seen a Greek inscription traced in red characters on the wall.

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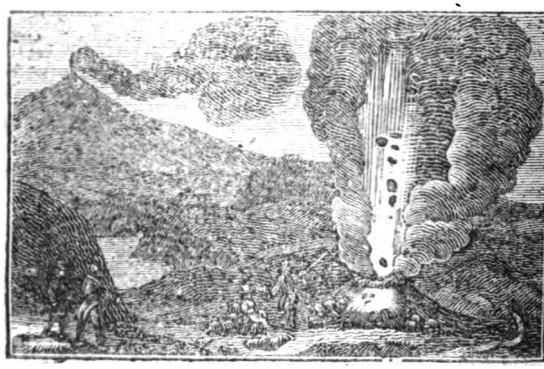

THE GEYSERS.

Nor stops the restless fluid, mounting still,
Tho' oft amid 'th irriguous vale of springs;
But to the mountain courted by the sand,
That leads it darkling on in faithful maze,
Far from the parent main, it boils again!
Fresh into day; and all the glittering hill
Is bright with spouting rills.——
The crystal treasures of the liquid world,
Through the stirred sands a bubbling passage ourst;
And welling out, around the middle steep,
Or from the bottoms of the bosomed hills,
In pure effusion flow. THOMSON.

These celebrated fountains, or hot spouting water springs, being nearly connected with the operations of subterraneous fire, so visible in every part of Iceland, may be properly introduced after the description of Mount Hecla, given on page 262.

They are seldom very near the volcanoes, but are dispersed over the whole country, and are even to be found on the summits of several of the ice mountains. The largest and most remarkable of these is situated in a large field, about sixteen miles to the north of Skalholt. At a great distance from it, on one side, are high mountains covered with ice, and on the other Hecla is seen rising

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above the clouds, while opposite to it is a ridge of rocks, at the foot of which water from time to time rushes forth. At the distance of a mile and a half a loud roaring noise is heard like that of a torrent precipitated from stupendous rocks, each ejection being accompanied by violent subterraneous detonations. The depth of the opening from which the water rushes has not been ascertained, but some seconds elapse before a stone thrown in reaches the surface. The Danish traveller Olafsen, asserts, that the water rises as high as sixty fathoms; while Van Troil estimates the highest jet at not more than sixty feet: the latter allows, however, that the jets may be more elevated, particularly in bad weather. The greatness of the explosive power is evinced by its not only preventing stones thrown in from sinking, but even forcing them up to a very great height, together with the water, and splitting the pebbles into a thousand pieces. The heat was found by Van Troil to be two hundred and twelve degrees of Fahrenheit, the boiling point. The edges of the pipe or basin are covered by a coarse stalactitic rind, and the water has been found to have a petrifying quality. The opening is perfectly circular, in diameter nineteen feet, and forms above, on the surface of the ground, a basin fifty-nine feet in diameter, the edge of which is nine feet above the orifice or hole.

In speaking of the Geysers, or hot spouting springs, Horrebow observes, that if you fill a bottle at one of them, the water it contains will boil three or four times, at the same time with the water in the well. The inhabitants boil their meat in it, by putting the meat in a vessel of cold water which they place in the hot spring.

Sir G. S. Mackenzie, whose recent travels in Iceland we have already cited, visited the Geysers at a season favorable to his observations, the latter end of July. He found the cultivation of the surrounding territory much higher than might have been inferred from the idea generally entertained of the barren and unproductive state of Iceland. All the flat ground in that quarter of the island was swampy, but not so much so as to impede the progress of the party, who, having passed several hot springs

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to the eastward of Skalholt, and others rising among the low hills they had left to the right, in proceeding to the great Geyser, came to a farm house, situated on a rising ground in the midst of the bogs. Here the people were busily employed in making hay, a scene which afforded a pleasing change from the dreary solitude they had quitted; the whole of this extensive district, which abounds in grass, would, if drained, our traveller observes, prove a very rich pasture country. Farther on they came to several cottages at the foot of the mountain, round which they turned, and came in sight of the hill, having the Geysers at one of its sides. This hill, in height not more than three hundred feet, is separated from the mountain, towards the west, by a narrow slip of flat boggy ground, connected with that which extends over the whole valley. Having crossed this bog, and a small river which ran through it, the party came to a farm house at the east end of the hill, and arrived at a spot where the most wonderful and awful effects of subterraneous heat are exhibited.

On the east side of the hill there are several banks of clay, from some of which steam rises in different places; and in others there are cavities, in which water boils briskly. In a few of these cavities, the water being mixed with clay, is thick and varies in colour; but is chiefly red and gray. Below these banks there is a gentle and uniform slope, composed of matter which, at some distant period, has been deposited by springs which no longer exist. The strata or beds thus formed, seemed to have been broken by shocks of earthquakes, particularly near the great Geyser. Within a space not exceeding a quarter of a mile, numerous orifices are seen in the old incrustations, from which boiling water and steam issue, with different degrees of force. At the northern extremity is situated the great Geyser, sufficiently distinguishable from the others by every circumstance connected with it. On approaching this spot it appeared that a mount had been formed of irregular, rough-looking depositions, upon the ancient regular strata, the origin of which had been similar. The slope of the latter has caused the mount to spread more on the east-side; and the recent depositions

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of the water may be traced till they coincide with them. The perpendicular height of the mount is about seven feet, measured from the highest part of the surface of the old depositions. From these the matter composing the mount may be readily distinguished, on the west side, where a disruption has taken place. On the top of this mount is a basin, which was found to extend fifty-six feet in one direction, and forty-six in another.

At a quarter before three o'clock in the afternoon, when the party reached the spot, they found the basin full of hot water, a little of which was running over. Having satisfied their curiosity at that time, they proceeded to examine some other places, whence they saw water ascending.—Above the great Geyser, at a short distance, they came to a large irregular opening, the beauties of which, the writer observes, it is hardly possible to describe. The water with which it was filled was as clear as crystal, and perfectly still, although nearly at the boiling point. Through it they saw white incrustations, forming a variety of figures and cavities, to a great depth, and carrying the eye into a vast and dark abyss, over which the crust supporting them formed a dome of an inconsiderable thickness; a circumstance which though not of itself agreeable, contributed much to the effects of this awful scene.

Having pitched their tent at the distance of about one hundred yards from the Geyser, and so arranged matters as that a regular watch might be kept during the night, Sir G. S. Mackenzie took his station at eleven o'clock, and his companions lay down to sleep. About ten minutes before twelve he heard subterraneous discharges, and waked his friends. The water in the basin was greatly agitated, and flowed over, but there was not any jet. The same occurred at half past two. At five minutes past four on Saturday morning, an alarm was given by one of the company. As our traveller lay next the door of the tent, he instantly drew aside the canvass, when at the distance of little more than fifty yards, a most extraordinary and magnificent appearance presented itself. From a place they had not before noticed, they saw water thrown up, and steam issuing with a tremendous noise. There

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was little water; but the force with which the steam escaped, produced a white column of spray and vapour, at least sixty feet high. They enjoyed this astonishing and beautiful sight until seven o'clock, when it gradually disappeared.

The remaining part of the morning was occupied in examining the environs of the Geysers; and at every step they received some new gratification. Following the channel which had been formed by the water escaping from the great basin during the eruptions, they found several beautiful and delicate petrifactions. The leaves of birch and willow were seen converted into white stone, and in the most perfect state of preservation, every minute fibre being entire. Grass and rushes were in the same state, and also masses of peat. Several of these rare and elegant specimens were brought safely to Great Britain. On the outside of the mount of the Geyser, the depositions, owing to the splashing of the water, are rough and have been justly compared to the heads of cauliflowers. They are of a yellowish brown colour, and are arranged around the mount, somewhat like a circular flight of steps. The inside of the basin is comparatively smooth; and the matter forming it is more compact and dense than the exterior crust; when polished it is not devoid of beauty, being of a gray colour, mottled with black and white spots and streaks. The white incrustation formed by the water of the beautiful cavity before described, had taken a very curious form at the water's edge, very much resembling the capital of a Gothic column.

THE NARROW WAY.

"There is but one gate into this way, and that is sound conversion. It is a *narrow* way, and there is no elbow room for lusts. It is a *pleasant* way, and gives *spiritual* pleasures, but prohibits those that are *sensual*. Life eternal is at the *end* of it. One hour of joy in heaven will compensate for an age of trouble on earth. One sheaf of that harvest will make up for sowing in tears."

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MOUNT VERNON.

We have the pleasure of gracing the present number of the Repository with two engravings of scenes associated with the memory of the father of his country; the one of his dwelling place, the other of his grave. Of these, little need be said in the way of description; they are more or less familiar to every American. The situation of Mount Vernon, on the south side of the Potomac, where the river is nearly two miles wide, is very picturesque. The mansion stands on a plain about two hundred feet above the level of the river, and commands a fine view of the surrounding country. The house is small and plain, and is surrounded by majestic trees.

> "What tales, if there were tongues in trees
> Those giant oaks could tell!"

The tomb is about two hundred paces from the house.

We thought that the fittest accompaniment to these sketches would be an account of the visit of La Fayette to the tomb of Washington; accordingly we give it in the words of his secretary.

"On the 17th October, 1824, we embarked in the steamboat Petersburgh, in company with the Secretary of War, Mr. Calhoun, Generals Macomb, Jones, and a great many

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other officers and citizens. After a voyage of two hours, the guns of Fort Washington announced that we were approaching the last abode of the father of his country. At this solemn signal, to which the military band accompanying us responded by plaintive strains, we went on deck, and the venerable soil of Mount Vernon was before us; at this view an involuntary and spontaneous movement made us kneel. We landed in boats, and trod upon the ground so often worn by the feet of Washington. A carriage received General La Fayette, and the other visiters silently ascended the precipitous path which conducted to the solitary habitation of Mount Vernon. In re-entering beneath this hospitable roof, which had sheltered him when the reign of terror tore him violently from his country and family, George La Fayette felt his heart sink within him, at no more finding him, whose paternal care had softened his misfortunes, whose example and wise counsel inspired his youthful mind with those generous sentiments which, at present, render him an example of good citizenship, a model to parents and husbands, the most devoted of sons, the most stable of friends. His father again sought with emotion for every thing which reminded him of the companion of his glorious toils.

Three nephews of General Washington took La Fayette, his son, and myself, to conduct us to the tomb of their uncle; our numerous companions remained in the house; in a few minutes after, the cannon of the fort thundering anew, announced that La Fayette rendered homage to the ashes of WASHINGTON.

Simple and modest as he was during life, the tomb of the citizen hero is scarcely perceived amid the sombre cypresses by which it is surrounded; a vault slightly elevated, and sodded over, a wooden door without inscription, some withered and some green garlands, indicate to the traveller who visits this spot, the place where rest in peace the puissant arms which broke the chains of his country. As we approached, the door was opened; La Fayette descended alone into the vault, and, in a few moments after re-appeared, with his eyes overflowing with tears. He took his son and me by the hand, and led us into the

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TOMB OF WASHINGTON.

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tomb, where by a sign he indicated the coffin of his paternal friend, along side of which was that of his companion in life, united to him for ever, in the grave. We knelt reverentially near his coffin, which we respectfully saluted with our lips; rising, we threw ourselves into the arms of La Fayette and mingled our tears with his.

In leaving the vault, we were met by the three nephews of Washington; one of them, Mr. Custis, presented General Lafayette with a gold ring, containing some of the hair of the illustrious dead, and we returned to the house where our companions awaited us. An hour was devoted to visiting the house and grounds, which at present belong to a nephew* of Washington, who bears the same name, and is one of the Judges of the Supreme Court of the United States. He has made no alteration in the property left him by his uncle, for whose memory he entertains the most profound and tender respect. George La Fayette assured us that every thing in the house was as he saw it twenty-eight years ago. He found in the place, where Washington himself had left it, the principal key of the Bastile, which was sent him by La Fayette, at the time this monument of despotism was destroyed. The note sent with the key is still carefully preserved.

After resting a few moments, we resumed the path leading to the shore; our march was silent; each of us bore a branch of cypress cut from over the tomb of Washington. We resembled a bereaved family who had just entombed a beloved father. We were already on board our vessel—and the waves had borne us afar, and no one had interrupted our silent meditation. At last Mount Vernon disappeared behind the high and winding banks of the river; all then grouped themselves on the quarter-deck of the steam boat, and listened till evening to La Fayette, who talked of WASHINGTON.

A GOOD man suffers evil and doeth good. A natural man suffers good and doth evil. DR. SIBBS.

* The Honorable Bushrod Washington, since deceased.

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DEPARTMENT OF NATURAL HISTORY.

THE STUDY OF NATURAL HISTORY.

It is rather a subject of surprise that, in our general associations and mixed societies, in times so highly enlightened as the present, when many ancient prejudices are gradually flitting away, as reason and science dawn on mankind, we should meet with so few, comparatively speaking, who have any knowledge of, or take the least interest in, Natural History; or if the subject obtain a moment's consideration, it has no abiding-place in the mind, being dismissed as the fitting employ of children and inferior capacities. But the natural historian is required to attend to something more than the vagaries of butterflies, and the spinnings of caterpillars. His study, considered apart from the various branches of science which it embraces, is one of the most delightful occupations that can employ the attention of reasoning beings. And perhaps none of the amusements of human life are more satisfactory and dignified than the investigation and survey of the workings and ways of Providence in this created world of wonders, filled with his never-absent power. It occupies and elevates the mind, is inexhaustible in supply, and, while it furnishes meditation for the closet of the studious, gives to the reflections of the moralizing rambler, admiration and delight, and is an engaging companion that will communicate an interest to every rural walk.

We need not live with the humble denizens of the air, the tenants of the woods and hedges, or the grasses of the field; but to pass them by in utter disregard, is to neglect a large portion of rational pleasure open to our view, which may edify and employ many a passing hour, and, by easy steps, will often become the source whence flow contemplations of the highest order. Young minds cannot, I should conceive, be too strongly impressed with the simple wonders of creation by which they are surrounded: in the race of life they may be passed by, the business of life may not admit attention to them, or the unceasing cares of

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the world may smother early attainments; but they can never be injurious. They will give a bias to a reasoning mind, and tend in some after thoughtful, sobered hour, to comfort and to soothe. The little insights that we have obtained into Nature's works, are many of them the offspring of scientific research; and partial and uncertain as our labours are, yet a brief gleam will occasionally lighten the darksome path of the humble inquirer, and give him a momentary glimpse of hidden truths. Let not, then, the idle and the ignorant scoff at him who devotes an unemployed hour—

No calling left, no duty broke,

to investigate a moss, a fungus, a beetle, or a shell, in "ways of pleasantness and in paths of peace." They are all the formation of Supreme Intelligence, for a wise and worthy end, and may lead us by gentle steps and degrees to a faint notion of the powers of infinite wisdom. They have calmed and amused some of us worms and reptiles, and possibly bettered us for our change to a new and more perfect order of being.

THE SEPIA OR CUTTLE FISH.

The Cuttle Fish, of which there are many different species, is a native of all the temperate and tropical seas. Its body is, in general, of an irregular oval shape, and of a jelly-like substance, and usually covered with a coarse skin, having the appearance of leather. Unlike all other inhabitants of the water which are without a backbone, the Sepia possesses two large and brilliant eyes, covered with a hard transparent substance.

The Cuttle Fish, figured in the annexed print, is furnished in front with eight arms or feelers, with which it grapples with its enemy, or conveys its prey to its mouth. These arms are most curiously constructed; and afford the animal ample means of defence; they possess in themselves a strong muscular power, and this is materially assisted by numerous cups or suckers, placed along the

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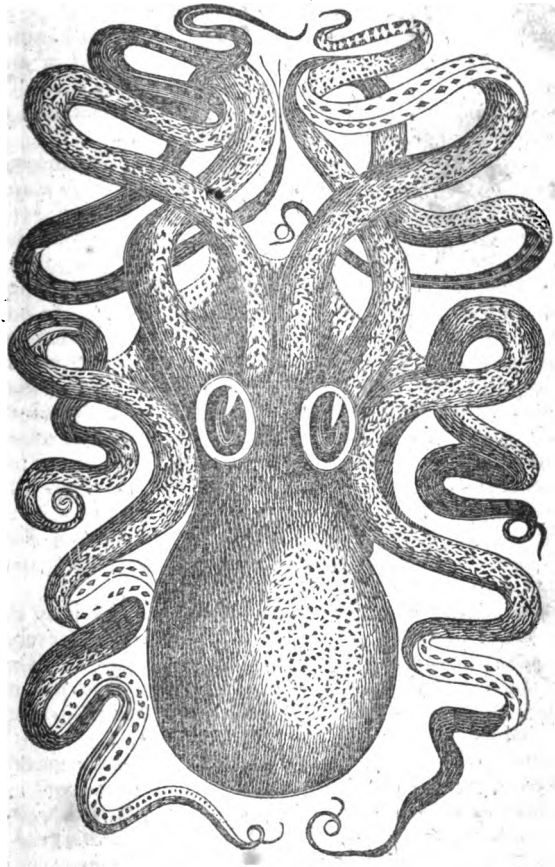

CUTTLE FISH.

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whole of their inner surface, with which they fasten themselves to any object they come in contact with. These feelers appear to be also endued with some peculiar power, of a galvanic nature; since the pain which they inflict does not cease for a long time after the removal of the animal, leaving a kind of stinging sensation, like that produced by nettles, which remains for many hours, and is followed by a troublesome irritation and itching.

The size to which this creature grows has been variously stated; and, although evidently exaggerated by some authors, there can be no doubt that it attains to a very considerable magnitude. When attacked in its own element, it has been known capable of overcoming a powerful mastiff. Its jaws are, likewise, extremely strong, formed like the beak of a parrot, and very hard. In addition to these means of defence, it possesses within its body a bladder, containing an inky-colored fluid, which it has the power of throwing out at will, and by thus discoloring the water, escapes the pursuit of its enemies. This inky liquid, when dried, forms a very valuable color, used by artists, and called, after the animal, *Sepia*. The eggs of the female are of an oval form, and joined to each other in clusters. They are of the size of filberts, of a black color, and commonly known by the name of *Sea Grapes;* they are found attached to sea-weed, rocks, and other marine substances.

The Cuttle Fish generally remains with its body in some hole in a rock, while its arms are extended in every direction, to seize the wanderer that may chance to pass its place of ambush. Its appetite is voracious, and it seizes as its prey every living thing that it has the power to conquer.

One species—The *Sepia Officinalis*—is very common on the English coasts, and the bone which is enclosed in its body is frequently found on the sands: it is a well-known substance, and is much employed in the manufacture of tooth-powder. This bone, which, with the exception of the jaws, is the only solid part in the Sepia, differs in shape in the different species: but is always somewhat oval in its shape, though differing considerably in texture.

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ON FISHES.

Their forms and colors, general character, &c.

The Fishes which are most abundant, and most frequent in our sight, have pleasing forms. Many are eminently beautiful in their colors, and in the general appearance of their neat and glossy skin and scales. Several have a golden hue or spots difficult to account for; and many a silvery gloss, as though the particles of these two metals were diffused among their skin. Others display a fine tinge of blue; some very pleasing tints of green. The effect of the whole is, that the general appearance of the fish creation in their forms, colors, brilliancy, gliding movement, rapid and changeful activity, and universal animation and vigor, excites sentiments of pleasure and admiration.

To us, with the exception of a few, they are wholly inoffensive. Not many, even in their own domain, would molest us; but all, even the most hostile, remain there, helpless and indefensible against our power, however great their magnitude may be.

The general character of fishes is not that of voracity and hostility. It is gentleness, harmlessness, sociality, and animation. They are peaceful animals; happy in themselves, and for the most part harmonizing together, without any general display of savage cruelty or malignant passions. Such as are appointed to be the food of others, die in that way, and are sought and taken for that purpose, when the appetite actuates, but no further. They cannot be justly stigmatized as voracious for this habit, more than ourselves for taking and eating them and cattle, sheep, fowls, game, and other living creatures.

The mild and harmless character of the fish class is impressively shown by most of its largest tribes. The great Greenland Whale pursues no other animal, leads an inoffensive life, and is harmless in proportion to its strength. The Sturgeon, with a form as terrible and a body as large as the shark, is yet harmless. The great Narwhal, one of the largest and strongest, is one of the most harmless

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and peaceable inhabitants of the ocean. It is seen constantly sporting among the other great monsters of the deep, no way attempting to injure them.

The ocean, indeed, contains some of a different humor —as the woods and mountains have the wolf and the tiger—but their object seems chiefly food. Fish which devour others for their subsistence, act only as the other carnivorous animals of nature, but they are for the most part indifferent or inoffensive to each other, and many are highly social, flocking peaceably together in shoals.

They have no organ of voice, nor lungs—yet a few emit sounds. As the Tunnies sail in their vast shoals, they utter a very loud hissing noise. The Ground Ling makes a similar sound when he is handled. The Scieria Stridens gives a small shriek when first taken out of water. The great Morse roars like a bull when he is disturbed, and snores while asleep. The common Seal moans piteously when pursued on land, as it is hurrying to the sea. The Ursine kind low like an ox, and the Leonine one both grunts and snorts. The Ursine Seal is said to have been observed, when vexed, to shed tears.

Fish appear capable of pleasurable feelings. No bird or quadruped seems happier. They appear to be easily satisfied with food, not to suffer from inclemency of weather or variations of the seasons. They are always in one even temperature—they appear to enjoy a longer continuity of health and strength than most other animals. They possess a natural longevity, which in some of their classes surpasses that of man. Like the vegetable, and other animal tribes, they have been made useful to man, both in contributing to his sustenance, and in supplying him with many important conveniences (as for instance, the Whale supplies us with oil and whale-bone.) But independently of the human race, they have been created to be happy beings in themselves.

They display to us our Creator's power; enlarge our knowledge of his omnipotence, and give us ocular evidence of its multifarious application.—*Abridged from Turner's Sacred History of the World.*

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THE MYSTERIES OF CREATION.

The designs of supreme intelligence in the creation and preservation of the insect world, and the regulations and appointments whereby their increase or decrease is maintained, and periodical appearance prescribed, are among the most perplexing considerations of natural history. That insects are kept in reserve for stated seasons of action, we know, being commonly made the agents of Providence in his visitations of mankind. The locust, the caterpillar, the palmer worm, the various family of blights, that poison in the spring all the promise of the year, are insects. Mildew, indeed, is a vegetable; but the wire worm destroys the root, and strips the germs of the wheat, and hunger and famine ensue. Many of the coleopteræ remove nuisances, others again incumbrances, and worms manure the soil; but these are trite and isolated cases in the profusion of the animal world; and left alone as we are in the desert of mere reason and conjecture, there is no probability that much satisfactory elucidation will be obtained. They are not perhaps important objects of inquiry; but when we see the extraordinary care and attention, that has been bestowed upon this part of creation, our astonishment is excited, and forces into action that inherent desire in our minds to seek into hidden things. In some calm summer's evening ramble, we see the air filled with sportive animated beings; the leaf, the branch, the bark of the tree, every mossy bank, the pool, the ditch, all teeming with animated life, with a profusion, an endless variety of existence; each creature pursuing its own separate purpose in a settled course of action, admitting of no deviation or substitution, to accomplish or promote some ordained object. Some appear occupied in seeking for the most appropriate stations for their own necessities, and exerting stratagems and wiles to secure the lives of themselves, or their offspring against natural or possible injuries with a forethought equivalent or superior to reason; others in some aim we can little perceive, or, should some flash of light spring up, and give us a momentary glimpse of nature's hidden ways, immediate darkness

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closes round, and renders our ignorance more manifest. We see a wonderfully fabricated creature struggling from the cradle of its being, just perfected by the elaboration of months or years, and decorated with a vest of glorious splendor; it spreads its wings to the light of heaven, and becomes the next moment, perhaps, with all its marvellous construction, instinct and splendor, the prey of some wandering bird! and human wisdom and conjecture are humbled to the dust. That these events are ordinations of supreme intelligence, for wise and good purposes, we are convinced. But we are blind beyond thought, as to secondary causes; and admiration, that pure source of intellectual pleasure, is almost alone permitted to us. If we attempt to proceed beyond this, we are generally lost in the mystery with which the divine Architect has thought fit to surround his works; and perhaps our very aspirations after knowledge increase in us a sense of our ignorance: every deep investigator into the works of nature can scarcely possess other than an humble mind.—*Journal of a Naturalist.*

BIOGRAPHICAL SKETCHES.

WILLIAM FLOYD.

William Floyd, who was the first delegate from New-York that signed the Declaration of Independence, was born on Long Island, on the 17th of December, 1734. His father was Nicoll Floyd, an opulent and respectable landholder, whose ancestors came to America from Wales, about the year 1680, and settled on Long Island. The father of William died while his son was young, and left him heir to a large estate.

The early education of young Floyd, by no means corresponded to the wealth and ability of his father. His studies were limited to a few of the useful branches of knowledge, and these were left unfinished, in consequence of the death of that gentleman. The native powers of Floyd were, however, respectable, and his house being the resort of an extensive circle of connexions and acquaint-

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ance, which included many intelligent and distinguished families, his mind, by the intercourse which he thus enjoyed with those who were enlightened and improved, became stored with rich and varied knowledge. His wealth enabled him to practise a generous hospitality, and few enjoyed the society of friends with more pleasure.

At an early period in the controversy between Great Britain and the colonies, the feelings of Mr. Floyd were strongly enlisted in the cause of the latter. He was a friend to the people; and, with zeal and ardor, entered into every measure which seemed calculated to insure to them their just rights. These sentiments on his part, excited a reciprocal confidence on the part of the people, and led to his appointment as a delegate from New-York to the first continental congress, which met in Philadelphia on the 5th of September, 1774. In the measures adopted by that body, so justly eulogized by the advocates of freedom, from that day to the present, Mr. Floyd most heartily concurred.

In the following year, he was again elected a delegate to congress, and continued a member of that body, until after the Declaration of American Independence. On that occasion, he assisted in dissolving the political bonds which had united the colonies to the British government; and in consequence of which, they had suffered numberless oppressions for years. Into other measures of congress, Mr. Floyd entered with zeal. He served on numerous important committees, and by his fidelity rendered essential service to the patriotic cause.

It was the lot of not a few, while thus devoted to the public good, to experience the destructive effects of the war upon their property, or the serious inconveniences arising from it in relation to their families. In both these respects, Mr. Floyd suffered severely. While at Philadelphia, attending upon congress, the American troops evacuated Long Island, which was taken possession of by the British army. On this latter event, the family of Mr. Floyd were obliged to flee for safety to Connecticut. His house was occupied by a company of horsemen, which made it the place of their rendezvous during the remain-

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der of the war. Thus, for nearly seven years, Mr. Floyd and his family were refugees from their habitation, nor did he, during this long period, derive any benefit from his landed estate.

In the year 1777, General Floyd, (we give him this military appellation, from the circumstance of his having some time before been appointed to the command of the militia on Long Island) was appointed a senator of the State of New-York, under the new constitution. In this body, he assisted to organize the government, and to accommodate the code of laws to the changes which had recently been effected in the political condition of the State.

In October, 1778, he was again elected to represent the State of New-York in the continental congress. From this time, until the expiration of the first congress, under the federal constitution, General Floyd was either a member of the national assembly, or a member of the Senate of New-York. In this latter body, he maintained a distinguished rank, and was often called to preside over its deliberations, when the lieutenant governor left the chair.

In 1784, he purchased an uninhabited tract of land upon the Mohawk River. To the clearing and subduing of this tract, he devoted the leisure of several successive summers. Under his skilful management, and persevering labors, a considerable portion of the tract was converted into a well cultivated farm; and hither, in 1803, he removed his residence. Although, at this time, he was advanced in life, his bodily strength and activity were much greater than often pertain to men of fewer years. He enjoyed unusual health, until a year or two before his death. The faculties of his mind continued unimpaired to the last. A little previous to his death, he appeared to be affected with a general debility, which continuing to increase, the lamp of life was at length extinguished. This event occurred on the 4th of August, 1821, and when he had attained to the extraordinary age of eighty-seven years.

In his person, General Floyd was of a middle stature. He possessed a natural dignity, which seldom failed to impress those in whose company he was thrown. He

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appeared to enjoy the pleasures of private life, yet in his manners he was less familiar, and in his disposition less affable, than most men. Few men, however, were more respected. He was eminently a practical man. The projects to which he gave his sanction, or which he attempted, were those which judgment could approve. When his purposes were once formed, he seldom found reason to alter them. His firmness and resolution were not often equalled.

In his political character, there was much to admire. He was uniform and independent. He manifested great candor and sincerity towards those from whom he happened to differ; and such was his well known integrity, that his motives were rarely, if ever, impeached. He seldom took part in the public discussion of a subject, nor was he dependent upon others for the opinions which he adopted. His views were his own, and his opinions the result of reason and reflection. If the public estimation of a man be a just criterion by which to judge of him, General Floyd was excelled by few of his contemporaries, since, for more than fifty years he was honored with offices of trust and responsibility by his fellow citizens.

THE FLOATING GARDENS OF CASHMERE.

The city of Cashmere, being the capital of the province of that name in Asia, is situated in the midst of numerous lakes, connected with each other, and with the River Vedusta, by canals, separated by narrow lines and insulated plots of ground. Upon these lakes are floating gardens, cut off generally from the body of the lake by a belt of reeds; the cultivation of which is not only very singular, but highly profitable, and worthy of imitation in many parts of Europe as a resource for raising food for man. The second number of the 'Journal of the Geographical Society' contains a notice of the Natural Productions and Agriculture of Cashmere, from which the following account is compiled:—

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The city of Cashmere is subject to considerable inundations, which have become annually more frequent, through the neglect of the government in not checking the accumulation of weeds and mud, which diminish the depth, and consequently increase the surface of the lakes. This has suggested the expediency of a floating support by which vegetables are cultivated in safety, deriving as much moisture as is beneficial without the risk of being destroyed. Various aquatic plants spring from the bottom of the lakes, as water lilies, sedges, reeds, &c.; and as the boats which traverse those waters take generally the shortest lines they can pursue to their destination, the lakes are in some parts cut into avenues as it were, separated by beds of sedges and reeds. Here the farmer establishes his cucumber and melon floats by cutting off the roots of the aquatic plants about two feet under water, so that they completely lose all connexion with the bottom of the lake, but retain their situation in respect to each other. When thus detached from the soil, they are pressed into somewhat closer contact, and formed into long beds of about two yards breadth. The heads of the sedges, reeds, and other plants of the float are next cut off and laid upon its surface, and covered with a thin coat of mud, which, at first interrupted in its descent, gradually sinks into the mass of matted stalks. The bed floats, but is kept in its place by a stake of willow driven through it at each end, which admits of its rising and falling in accommodation to the rise and fall of the water. By means of a long pole thrust among the reeds at the bottom of the lake from the side of a boat, and turned round several times, a quantity of plants are torn off from the bottom, and carried in the boat to the platform, where the weeds are twisted into conical mounds about two feet in diameter at their base, and of the same height, terminating at the top in a hollow, which is filled with fresh soft mud, and sometimes wood ashes. The farmer has in preparation a number of cucumber and melon plants, raised under mats, and of these, when they have four leaves, he places three plants in the basin of every cone or mound, of which a double row runs along the edge of every bed at about two feet distance from

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each other. No further care is necessary except that of collecting the fruit, and the expense of preparing the platforms and cones is very trifling. Mr. Moorcroft traversed about fifty acres of these floating gardens growing cucumbers and melons, and saw not above half a dozen unhealthy plants; and he says, he never saw in the cucumber and melon grounds, in the vicinity of populous cities in Europe or in Asia, so large an expanse of plant in a state of equal health or luxuriance of growth. The general depth of the floating beds is about two feet, and some of them are seven feet broad. The season lasts for three months and a half, beginning in June. From the first setting of the fruit to the time of pulling, seven or eight days are the ordinary period. Thirty full-sized fruit from each plant, or from ninety to a hundred from each cone, are the average crops. The seed of the melon is brought annually from Baltistan, and the first year yields fruit of from four to ten pounds each in weight; but if the seed be re-sown, the produce of the second year exceeds not from two to three pounds. Unless when eaten to great excess the melon produces no disorders, and it is remarked that healthy people who live upon this fruit during the season become very speedily fat; and the effect upon horses fed upon this fruit is reported to be the same. In the early part of the season, cucumbers of full size sell at the rate of about three for a piece of coin of the value of a half-penny; but as the weather becomes hotter, and the plants get into full bearing, ten, fifteen, and even twenty are purchased for this price. It is calculated that every cone yields a money return of about eighteen-pence. Allowing sixpence for labour of every description, and including also the tax, the clear profit is a shilling for every two square yards. The yield of the melon is numerically less, but the return of profit is at least equal. No other vegetables are raised upon the spaces between the cones, although Mr. Moorcroft thinks that onions, cresses, and other useful vegetables might be raised upon them; and water-mint grows spontaneously upon the floats.

Cashmere, or Cassimere, is one of the northern pro-

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vinces of India within the Ganges. It is surrounded by mountains, and from its beauty and fertility has been called the Paradise of the Indies. It contains upwards of 100,000 villages, is well stocked with cattle and game, and is said to be unmolested by beasts of prey. The people are ingenious, and resemble the Europeans in their persons, and the women are fair and tall. The famous Cashmere shawls derive their name from this country, though at present the supply that actually comes from it is comparatively small.

PROVERBS.

"A man of fashion," says Lord Chesterfield, "never has recourse to proverbs and vulgar aphorisms." And yet many greater men than Lord Chesterfield have not been ashamed of employing the pithy maxims that were husbanded in the memories of the people before they had books for their guides. Those of our forefathers who could read had proverbs stamped on the blades of their knives, and the borders of their pewter plates; and, according to an old dramatist, they "conned them out of goldsmith's rings." A member of the House of Commons, in the time of Elizabeth, made a speech in favor of a proposed law for limiting credit, in the following words: "I think this law is a good law. Even reckoning makes long friends. As far goes the penny as the penny's master. Laws are for the good of the wakeful and not the sleeping. Pay the reckoning over night, and you shall not be troubled in the morning. If ready money be the public measure, let every one cut his coat according to his cloth. When his old suit is in the wane, let him stay till that his money bring a new suit in the increase." Proverbs present a curious history of the popular mind; and in many lessons of individual prudence they are safe guides. But there are some maxims, especially on subjects connected with the general interests of the community, which

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show how little our ancestors understood of these leading principles of public economy upon which nations must now found their prosperity. Some of these ancient saws are still in the mouths of many who have not yet learnt to think without prejudice; and we may render an acceptable service if we occasionally endeavor to show the fallacy of such proverbs as the following, which at present occur to us:—

"The strength of work is the decay of trade."

"The pride of the rich makes the labors of the poor."

"Store's no sore."

"One man's gain is another man's loss."

GENIUS.

It is the prerogative of GENIUS to confer a measure of itself upon inferior intelligences. In reading the works of Milton, Bacon, and Newton, thoughts greater than the growth of our own minds are transplanted into them; and feelings more profound, sublime, or comprehensive, are insinuated amidst our ordinary train; while in the eloquence with which they are clothed, we learn a new language, worthy of the new ideas created in us. Of how much pure and exalted enjoyment is he ignorant, who never entertained, as angels, the bright emanations of loftier intellects than his own? By habitual communion with superior spirits, we not only are enabled to think their thoughts, speak their dialect, feel their emotions, but our own thoughts are refined, our scanty language is enriched, our common feelings are elevated; and though we may never attain their standard, yet, by keeping company with them, we shall rise above our own; as trees, growing in the society of a forest, are said to draw each other up into shapely and stately proportion, while field and hedgerow stragglers, exposed to all weathers, never reach their full stature, luxuriance or beauty.—JAMES MONTGOMERY.

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POETRY.

THE WIDOW TO HER DYING CHILD.

That sigh's for thee, thou precious one! Life's pulse is ebbing fast,
And o'er thy once all-joyous face, death's sickly hue is cast
The azure eye hath lost its ray, thy voice its buoyant tone,
And, like a flower the storm has crush'd, thy beauty's past and gone.

Another pang, and all is o'er; the beating heart is still:
Meekly, though sad, thy Mother bows to the Almighty's will.
Grief presses heavy on my heart, my tears fall thick and fast,
But thou, thou art in heaven, my child! Life's chequer'd dream is past.

The busy feet that gladly ran thy mother's smile to greet;
The prattling tongue that lisp'd her name in childhood's accents sweet;
The glossy curl that beam'd like gold upon thy snowy brow
The lip, meet rival for the rose.—Oh, Death! where are they now?

Wither'd beneath his icy touch; lock'd in his dull cold sleep:
Whilst all the joy a Mother knows, in silence is to weep,
Or start, as Fancy's echo wakes thy voice to mock her pain,
Then turn to gaze upon thy corse, and feel her grief is vain.

The grave, the dark cold grave, full soon will hide thee from my view,
Whilst I my weary path through life in solitude pursue;
My early, and my only love, is number'd with the dead,
And thou, my last sole joy on earth, my boy, thou too art fled!

REMEMBRANCE.

The rembrance of youth is a sigh.—ALI

Man hath a weary pilgrimage
As through the world he wends;
On every stage from youth to age
Still discontent attends:
With heaviness he casts his eye
Upon the road before,
And still remembers with a sigh,
The days that are no more.

To school the little exile goes,
Torn from his mother's arms,—
What then shall soothe his earliest woes,
When novelty hath lost its charms?
Condemn'd to suffer through the day
Restraints which no rewards repay,

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And cares where love has no concern,
Hope lengthens as she counts the hours,
Before his wish'd return.
From hard control and tyrant rules,
The unfeeling discipline of schools
In thought he loves to roam;
And tears will struggle in his eye
While he remembers with a sigh
The comforts of his home,

Youth comes; the toils and cares of life
Torment the restless mind;
Where shall the tired and harass'd heart
Its consolation find?
Then is not youth, as fancy tells,
Life's summer prime of joy?
Ah no! for hopes too long delay'd
And feelings blasted or betray'd,
The fabled bliss destroy;
And youth remembers with a sigh
The careless days of infancy.

Maturer manhood now arrives,
And other thoughts come on;
But with the baseless hopes of youth
Its generous warmth is gone;
Cold calculating cares succeed,
The timid thought, the wary deed,
The dull realities of truth;
Back on the past he turns his eye,
Remembering with an envious sigh
The happy dreams of youth.

So reaches he the latter stage
Of this our mortal pilgrimage,
With feeble step and slow;
New ills that latter stage await,
And old experience learns too late
That all is vanity below.
Life's vain delusions are gone by,
Its idle hopes are o'er,
Yet age remembers with a sigh
The days that are no more.

SONNET.

Sleep, Silence' child, sweet father of soft rest,
Prince whose approach peace to all mortals brings,
Indifferent host to shepherds and to kings,
Sole comforter of minds which are oppress.

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Lo! by thy charming rod all breathing things
Lie slumbering, with forgetfulness possest,
And yet o'er me to spread thy drowsy wings
Thou spar'st, alas, who cannot be thy guest.
Since I am thine, O come, but with that face
To inward light which thou art wont to show,
With feigned solace ease a true-felt wo;
Or if, deaf god, thou do deny that grace,
Come as thou wilt, and what thou wilt bequeath,
I long to kiss the image of my death.

SONG OF DAVID.

[The Song of David, of which the following is an extract, is a poem of very unequal merit, composed under the most unfavorable circumstances, while the author was in a state of confinement in a madhouse. The lines are said to have been indented by the unhappy man with a key on the wall of his cell. Christopher Smart, although gifted by nature with considerable talents, dragged on a wretched existence in London by endeavors to maintain himself by his pen. At this period literary labor was very inadequately rewarded. The age of patronage was passing away, and the steady support arising out of a large public demand for books was scarcely created. Smart was chiefly supported by the bounty of his friends, and died in extreme poverty in 1770, aged 48. A considerable number of Smart's poems are devoted to religious subjects; and it is an affecting example of the fervency of his piety amidst his mental wanderings, that many passages of a peculiarly serious nature are recorded to have been written while he knelt.]

He sung of God, the mighty source
Of all things, the stupendous force
On which all things depend:
From whose right arm, beneath whose eyes,
All period, power, and enterprise,
Commence, and reign, and end.

The world, the clustering spheres he made,
The glorious light, the soothing shade,
Dale, champaign, grove and hill;
The multitudinous abyss,
Where Secresy remains in bliss
And Wisdom hides her skill.

Tell them, I AM, Jehovah said
To Moses, while Earth heard in dread,
And, smitten to the heart,
At once above, beneath, around,
All Nature, without voice or sound,
Replied, O Lord, THOU ART!

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THE

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MOUNTAIN TRAVELLING IN SOUTH AMERICA.

TRAVELLERS in England, or even those who may have passed over the Pyrenees or Alps, can have but a faint idea of the labour and danger of crossing the Andes, that immense mountain-chain by which the continent of South America is intersected, from its southern to its most northern extremity, dividing Peru and Chili, on the western Coasts, from Columbia and Brazil, on the eastern. Many of the Passes are upwards of 18,000 feet, or nearly four miles, in perpendicular height, above the level of the sea. In some parts men, who have made it their sole occupation, carry the passenger up the most steep and dangerous paths, in a kind of chair fastened to their backs; but in general, the journey is made by travellers mounted on that patient and sure-footed animal, the mule.

The above engraving is from a print in the *Travels* of Colonel Hamilton, who, in 1823, visited South America, as chief commissioner from the king of Great Britain to the republic of Colombia. It represents a perilous situation common to the traveller in these terrific regions, when his safety depends wholly on the sure-footedness of his mule. In the pass along which the traveller is proceeding, the road is separated by a chasm, several feet in width, which forms the mouth of a yawning gulf, some hundreds of feet in depth. The sagacity shown by the mules in leaping these dangerous openings, which are of common occurence, is a subject

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of admiration among all travellers who have visited these regions. In some places, also, it is necessary to make the descent of immense heights; an undertaking of great danger, from their excessive steepness, and the slippery state of the mule-track. "On these occasions, the mules," says Colonel Hamilton, "take every precaution, and seem to know the danger they incur; for they inspect the road narrowly before them, and then place their fore-legs close together, and slide down on their hams in a manner which scarcely any one but an eye-witness would credit."

Major Head, in his *Rough notes of a journey across the Pampas*, gives the following animated picture of the preparation of a train of baggage mules for a journey over these dangerous Passes; and of some of the casualties common to these perilous journeys. "Anxious to be off" says he, "I ordered the mules to be saddled; as soon as this was done, the baggage-mules were ordered to be got ready. Every article of baggage was brought into the yard, and divided into six parcels (the number of the baggage-mules,) quite different from each other in weight and bulk, but adapted to the strength of the different mules.

"The operation of loading then began. The peon (the driver) first caught a great brown mule with his lasso,* and then put a poncho (a large shawl in which the natives dress) over his eyes, and tied it under his throat, leaving the animal's nose and mouth uncovered. The mule stood still, while the captain and peon first put on the large straw pack-saddle, which they girthed to him, in such a manner that nothing could move it. The articles were then placed, one by one, on each side, and bound together, with a force and ingenuity against which it was hopeless for the mule to contend.

"I could not help pitying the poor animal, on seeing him thus prepared for carrying a heavy load, such a wearisome distance, and over such lofty mountains as

* The Lasso is a long leathern thong, used by the hunters and drivers of South America in catching wild animals.

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the Andes; yet, it is truly amusing to watch the nose and mouth of a mule when his eyes are blinded, and his ears pressed down upon his neck in the poncho. Every movement which is made about him, either to arrange his saddle or his load, is resented by a curl of his nose and upper-lip, which, in ten thousand wrinkles, is expressive beyond description, of every thing that is vicious and spiteful: he appears to be planning all sorts of petty schemes of revenge, and as soon as the poncho is taken off, generally begins to put some of them into execution, either by running, with his load, against some other mule, or by kicking him. However, as soon as he finds that his burden is not to be got rid of, he dismisses or perhaps conceals his resentment, and in stantly assumes a look of patience and resignation.

* * * * * * * * * *

"As I was looking up at the region of snow, and as my mule was scrambling along the steep side of the rock, the captain overtook me, and asked me if I chose to come on, as he was going to look at a very dangerous part of the road, which we were approaching, to see if it was passable, before the mules came to it. In half an hour we arrived at the spot. It is the worst Pass in the whole road over the Cordillera Mountains. The mountain above appears almost perpendicular, and in one continued slope down to a rapid torrent that is raging underneath. The surface is covered with loose earth and stones, which have been brought down by the waters. The path goes across this slope, and is very bad for about seventy yards, being only a few inches broad; but the point of danger is a spot, where the water, which comes down from the top of the mountain, either washes the path away, or covers it over with loose stones. In some places, the rock almost touches one's shoulder, while the precipice is immediately under the opposite foot, and high above head, are a number of loose stones, which appear as if the slightest touch would send them rolling into the torrent beneath, which is foaming and running with great violence. As soon as we had crossed the Pass, which is only seventy yards

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long, the captain told me it was a very bad place for baggage mules; that four hundred had been lost there; and that we should probably also lose one. He said, that he could get down to the water at a place about a hundred yards off, and wait there with his lasso, to catch any mule that might fall into the torrent; and he requested me to lead on his mule. However, I resolved to see the tumble, if there was to be one, so the captain took away my mule and his own, and while I stood on a projecting rock, at the end of the Pass, he scrambled down on foot, till he got to the level of the water.

"The drove of mules now came in sight, one following another: a few were carrying no burdens, but the rest were either mounted or heavily laden. As soon as the leading mule came to the commencement of the Pass, he stopped, evidently unwilling to proceed, and of course all the rest stopped also.

"He was the finest mule we had, and on that account, had twice as much to carry as any of the others. With his nose to the ground, literally smelling his way, he walked gently on, often changing the position of his feet, if he found the ground would not bear, until he came to the bad part of the Pass, when he stopped; but the peons threw stones at him, and he continued his path in safety, and several others followed.

"At length, a young mule, carrying a portmanteau, with two large sacks of provisions, and many other things, in passing the bad point, struck his load against the rock, which knocked his two hind-legs over the precipice, and the loose stones immediately began to roll away from under them: however, his fore-legs were still upon the narrow path: he had no room to put his head there, but he placed his nose on the path to his left, and appeared to hold on by his mouth: his perilous fate was soon decided by a loose mule, who, in walking along after him, knocked his comrade's nose off the path, destroyed his balance, and head over heels the poor creature instantly commenced a fall, which was really quite terrific. With all his baggage firmly

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lashed to him, he rolled down the steep slope, until he came to the part which was perpendicular, and then he seemed to bound off, and turning round in the air, fell into the deep torrent, on his back, and upon his baggage, and instantly disappeared." To any other animal but a mule, this fall must have been fatal; he was carried down by the stream in spite of all his efforts, and, turning the corner of a rock, was given up for lost. "At length," the author continues, "I saw at a distance a solitary mule walking towards us! We instantly perceived that he was the Phaëton whose fall we had just witnessed, and in a few moments he came up to us to join his comrades. He was, of course, dripping wet, his eye looked dull, and his whole countenance was dejected, but none of his bones were broken: he was very little cut, and the bulletin of his health was altogether incredible."

HAPPINESS.

It is a happy world after all. The air, the earth, the water, teem with delighted existence.

In a spring noon, or a summer evening, on whichever side I turn my eyes, myriads of happy beings crowd upon my view. "The insect youth are on the wing." Swarms of new-born flies are trying their pinions in the air. Their sportive motions, their wanton mazes, their gratuitous activity, their continual change of place without use or purpose, testify their joy, and the exultation which they feel in their lately-discovered faculties. A bee amongst the flowers in spring, is one of the most cheerful objects that can be looked upon. Its life appears to be all enjoyment; so busy, and so pleased; yet it is only a specimen of insect life, with which, by reason of the animal being half domesticated, we happen to be better acquainted than we are with that of others.

Other species are *running about*, with an alacrity in their motions, which carries with it every mark of pleasure. Large patches of ground are sometimes half co-

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vered with these brisk and sprightly natures. If we look to what the waters produce, shoals of the fry of fish frequent the margins of rivers, of lakes, and of the sea itself. These are so happy, that they know not what to do with themselves. Their attitudes, their vivacity, their leaps out of the water, their frolics in it (which I have noticed a thousand times with equal attention and amusement,) all conduce to show their excess of spirits, and are simply the effects of that excess. Walking by the sea-side, in a calm evening, upon a sandy shore, and with an ebbing tide I have frequently remarked the appearance of a dark cloud, or rather, very thick mist, hanging over the edge of the water, to the height, perhaps, of half a yard, and of the breadth of two or three yards, stretching along the coast as far as the eye could reach, and always returning with the water. When this cloud came to be examined, it proved to be nothing else than so much space, filled with young shrimps, in the act of bounding into the air from the shallow margin of the water, or from the wet sand. If any motion of a mute animal could express delight it was this: if they had meant to make signs of their happiness they could not have done it more intelligibly. Suppose then, what I have no doubt of, each individual of this number to be in a state of positive enjoyment; what a sum, collectively, of gratification and pleasure have we here before our view.

SUPERSTITIONS.

THERE would appear to exist naturally in the human mind, a disposition to attach notions of good or of evil to those objects which have been observed to precede, or to accompany pleasurable or painful occurrences; hence the origin of many superstitious opinions. From such association of ideas many animals were anciently worshipped, either as gods or evil spirits; and even at a later period, when their worship was rejected as profane or useless, they were still considered as indicators of evil or of good. Many of these superstitions origi-

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nated in the observance of facts, ascribable to atmospheric influence. Thus, certain birds being affected by peculiarities of the air, previous to thunder storms or other terrible events, and showing signs of their feelings by peculiar habits or motions, were found to be the indicators of tempests, hurricanes, and other dangerous atmospherical commotions; and they were subsequently considered as evil omens in general; gaining, as it were, an ill name by their utility as monitors. So the crow, garrulous before stormy weather, was afterwards regarded as a predictor of general misfortune. Many animals, too, were considered by the ancients as influenced by human prayers and supplications. In this manner the observance of many real facts laid the foundation for superstitions, which terrified the ignorant, and which the designing made use of in order to acquire respect, and to aggrandize themselves. Hence the rise of sorcerers, augurs, interpreters of dreams, omens, and portents, and other impostors, who pretended, in the peculiar flight and songs of birds, to read the destinies of individuals and of nations. It is probable that out of a number of such predictions, some might happen to be true, where the sagacity of the augur penetrated farther into probable events than the ignorance of the multitude; and this fortuitous coincidence enhanced the public credulity, strengthened the empire of superstition, depressed the mental and physical energies of the people, and became a fatal impediment to the progress of science throughout succeeding ages. It may be interesting to examine a few cases in point for the sake of illustration.

Among all the birds of evil report among the ancients, the owl stands foremost, as being the one most generally regarded as the harbinger of mischief and of death. Pliny the natural historian, represents the large eared or horned owl, *strix bubo*, as a funeral bird, the monitor of the night, the abomination of human kind. And Virgil describes its death howl from the temple by night; a circumstance introduced by the poet as a precursor of the death of Dido. Ovid constantly speaks of the presence of this

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bird as an evil omen; and the same notions respecting it may be found in the effusions of most of the ancient poets; indeed there is scarcely a poet ancient or modern who does not speak of the owl in this point of view. The superstitious opinion that this bird is the harbinger of death, still prevails among the ignorant of many parts of Europe. The striking, sapient, mysterious, and peculiar look of this bird, the strangeness of its habits, its occasional and uncertain appearance in towns, and its loud and dismal cry, uttered often when all other birds are quiet, as well as its being the bird of night, are the circumstances which, aided by an occasional coincidence of events, have caused the owl to be regarded as an evil omen. This and similar superstitions will appear less surprising, when it is considered that crafty and designing persons had a direct interest in their propagation.

The dread attached to the owl seems to have been extended to other birds of the night; a circumstance which rather corroberates the idea that they were dreaded, in a great measure, from being the companions of darkness and obscurity. Spencer has given us a most woful catalogue of harmful fowls, in the second book of the Fairie Queene.* The hollow booming of the bittern, from the pool, on a still evening, and the hoarse sound of the nycticorax and fern-owl, are equally striking; may be easily imagined plaintive, and seem capable when uttered in the stillness of the evening, of exciting ideas of melancholy, and of inducing in the minds of

* *Book II. Canto XII. Stanza XXXVI.*

Even all the nation of unfortunate
And fatall birdes about them flocked were,
Such as by nature men abhorre and hate;
The ill-faste owle, death's dreadful messengere;
The hoars night-raven, trump of doleful drere;
The lether winged batt, dayes enimy:
The ruefull strich, still waiting on the bere;
The whistler shrill, that whoso heares doth dy;
The hellish harpyes prophets of sad destiny:

XXXVII.

All those and all that elses does horror breed
About them flew, and fil'd their souls with feare.

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the vulgar and ignorant a notion of their being connected with misfortune.

It was long ago observed, that the frequent immersion of certain fowls in the water portended rain; and they were, consequently, considered unlucky; while others, who never dived, were regarded as good signs, a fact observed by Niphus in his book of augury, who quotes a verse to that effect from Amilius; and Virgil makes Venus predict the safety of the Trojan fleet to Eneas from the flight of swans. Another familiar instance of the effect of association of ideas is the following. Vultures, which prey on carcasses, naturally followed armies and inhabited the field of battle after the conflict: the ancients, therefore, associated their appearance with bloodshed and destruction, and they became evil omens, particularly when following in the track of armies.

There is a superstitious respect paid to the swallow and the martin in many parts of Europe at the present day. Their nests are protected, and it is considered unlucky to molest them even by accident. This is a very old opinion, mentioned by many writers; and the circumstance of their building so close to the habitations of man seems to indicate that they have long enjoyed freedom from molestation. For animals would appear to regulate their conduct according to circumstances; and it is not only that the individual learns to avoid danger, but the whole species seems by degrees to become apprized of the state of either enmity or amity existing between them and man, and to act in conformity with this knowledge. The religion of the Brahmins protects animals from injury, and hence, in parts of India, hawks and other birds of prey are so familiar and daring, as to snatch the food from out of dishes, as men are carrying them from the kitchen to the place of repast. The Turks have also a superstitious tenderness for birds, and Constantinople has been called the paradise of the feathered race. The respect paid to the swallow may have originated in its being the harbinger of spring, and from its inhabiting churches, temples, and other sacred places, and, perhaps, in some measure

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also, from its usefulness of clearing the air of insects. The low flight of swallows predicts rain, and their settling on buildings is an autumnal custom previous to their departure, or the commencement of wintry weather; hence have they, perhaps, been considered by some, as portending evil. The crowing of the cock was reckoned ominous, particularly prophesying the event of wars. The crowing of the cock presaged the victory of Themistocles over the Persians. A victory of the Bœtians over the Lacedemonians was, also, said to be told by the same bird.

It is an old observation, that the appearance of a certain species of beetle called *Tenebrio mortisagus*, was a presage of death; which may be founded on observation. For the appearance of the insect may, in reality, forebode the death of sick persons in a house where it is observed; since the same peculiarity of atmosphere which may force the beetle to leave its hiding place, may be such an one as would hasten the death of the patient. If it be any such association of ideas as those which we have described, that most of the superstitious devotions paid to particular birds and animals have originated, the worship of the Ibis, and of the Scarabeus in Egypt, and of many other animals in Asia and Africa, might, with some care, be shown to have sprung from a similar source.

DEPARTMENT OF NATURAL HISTORY.

THE BELL-SHAPED SEA-NETTLE.

Medusa Campanulata.

Whoever has been in the habit of walking on the sea shore, must have observed, when the tide has retired, a number of substances, lying on the sand, in appearance like masses of jelly; in the summer season they are extremely abundant, and in warmer climates are found of a very large size. These substances notwithstanding their appearance will be found on examination to be living bodies, and as perfectly formed for

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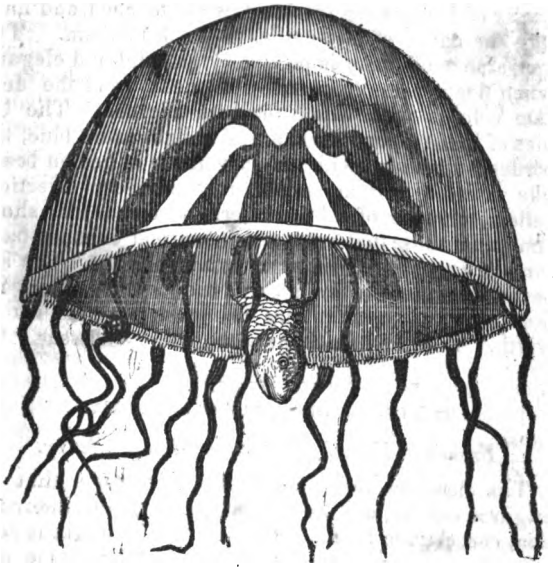
all the purposes of their nature, as any other part of the works of the great Creator.



The Bell-Shaped Sea Nettle.

Their bodies are nearly transparent, and the different organs they enclose are faintly visible to the eye; their form is that of a saucer upside down, and the mouth as may be seen by the engraving, is placed below. The outward edge of this body is furnished with numerous arms which gradually taper towards the ends, where they appear like so many threads: with these arms, the creature is able to convey its food to its mouth; small fish, or any other animal substance that comes within its reach, afford it the means of subsistence.

The indigestible parts of the food which are swallowed, are, after a time, returned by means of the mouth.

Many varieties of the Medusa are phosphorescent; that is they shine at night with a pale blue flame, like

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that of phosphorus, and their appearance, when floating in large groups on the surface of the sea, on a dark night, is extremely beautiful. Some species have the power of benumbing the hand, when touched, and have had the name of Sea-nettles applied to them. The appearance of many is peculiarly graceful and elegant, when floating in their native element, from the delicate colours with which they are adorned. The bodies of some among them are of a light azure blue, the border surrounded with the appearance of golden beads like a coronet, from which stream in every direction, delicate threads of a bright carmine colour; in short, almost all those that are found in warmer climates have something pleasing either in form or colour. The annexed engraving is an enlarged view of the object represented, its natural size being about one inch in width. It is an inhabitant of the Greenland seas.

THE ESTABLISHMENT OF CHRISTIANITY.

From the French of L' Abbé Claude Fleury.

The christian religion has this advantage, that its origin is certain, and its history, without any interruption, consecutive to the present time. Its origin is certain; for infidels themselves allow that Christ came into the world more than seventeen centuries ago. We have in our hands his history, written by his disciples, who were eye-witnesses of what they relate; we have the writings of Prophets, who foretold his appearance so long before it occured; and are acquainted with their dates and authors, as far back as Moses, whose writings are the most ancient in existence. This was not the case with the fables upon which the religion of the Greeks and other Pagan nations was founded. Their poets, who were also their prophets and theologians, usually declared themselves to be instructed by the muses or other divinities; but of this they gave no proof; nor could they mention the circumstances attending the wonderful events which they relate, nor cite

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witnesses. No man ever said he had seen Jupiter changed into a bull or a swan; Neptune striking the earth with his trident; or the chariot of the sun. These were mere tales of old women and nurses, consecrated by a blind respect for antiquity, and adorned by the charms of poesy, of music, and of painting: and as these fables were formed in different countries, and at various times, they were filled with contradictions which it was impossible to reconcile. The same thing is apparent among the Hindoos, and all other modern idolaters, who believe in the most preposterous and extravagant relations, advanced without any corresponding circumstances of time or place, and without any regard to the statements of credible history.

It is true, we are acquainted with the origin and progress of Mahometanism; but here we find nothing supernatural. A bold, cunning, and eloquent man, though otherwise very ignorant, seduced men as ignorant as himself, under pretext of overthrowing an idolatrous worship, which had long before fallen into disrepute, and proposed in its place a creed without mystery, and practices conformable to their manners. He established it by the sword; and made conquests which have been extended by his successors. In all this there is nothing out of the ordinary course of human events. Those who have attributed any miracle to Mahomet wrote long after his time; and indeed he himself, who is entitled to belief on this point, expressly declared to those who demanded proofs of his mission, that God had not sent him to perform miracles, Moses and Jesus having already performed a sufficient number: nor do we find that this religion has subsisted either under persecution or a foreign government.

It is, therefore, the character of the true religion, to be equally certain and marvellous. Miracles were necessary to testify that it was God who spoke, and to open the eyes of mankind accustomed to view the wonders of nature without admiration. Miracles were yet more necessary, because the faith was rational, and opposed to that blind credulity which follows, by chance,

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whatever is proposed to it as wonderful. But the same goodness which caused God to perform so many miracles to draw us to himself, caused men to perform them before the face of the world; that is, in those times and places most proper to preserve the recollection of them. Moses performed his miracles in Egypt, in the capital city, in presence of the King, at the time when the Egyptians were the most learned and polished nation in the world; and he had the testimony of an entire people whom he had delivered, and to whom he had given laws written by himself in the same book that contained all his miracles. Jesus Christ appeared in the time of Augustus, the most brilliant period of the Roman empire, of which so many writings remain to the present time, and which is better known to us than the reigns of some of our earlier kings. He was born in Judea, in accordance with the prophecies; he taught his doctrine and performed the greater part of his miracles at Jerusalem, the capital; and there he was crucified, and rose again from the dead. His disciples soon spread throughout the Roman empire, and shortly afterwards, over the whole world. They preached in the great cities of Antioch, Alexandria, and Rome itself; they taught at Athens, at Corinth, and throughout all Greece; in cities the most learned, corrupt, and idolatrous. It was to the face of all nations, Greeks and Barbarians, learned and unlearned, people and princes, that the disciples of Jesus Christ bore testimony of the wonders they had seen with their eyes, heard with their ears, and touched with their hands, particularly of his resurrection. They persisted in this testimony without any self-interest, and contrary to all the dictates of human prudence, until their latest breath, and then sealed it with their blood.

In the Nicobar Islands the natives build their vessels, make the sails and cordage, supply them with provisions and necessaries, and provide a cargo of arrack, vinegar, oil, coarse sugar, cocoa-nuts, cordage, black paint, and several inferior articles, for foreign markets, entirely from the cocoa-nut tree.—Forbes's *Oriental Memoirs.*

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FECUNDITY OF PLANTS.

THE rapidity with which individual species have the power of multiplying their numbers, both in the animal and vegetable world, is well worthy of observation.

Our attention has been more forcibly attracted to this subject by reading the following fact in an Irish newspaper:—"During the past season a single grain of potato oats, on the lands of the Rev. Mr. Mills, Ballywillan, near Coleraine, produced thirty-two stalks, all growing from the same root, and containing in all nearly 5,000 grains of corn."

If each of these 5,000 grains were, in the ensuing year, to be endued with the same power of fecundity as their parent seed, 25,000,000 grains would be produced; and these multiplying once again, in the same ratio, would yield a harvest of oats which would amount to nearly 30,000 quarters.

But though this be a remarkable instance of fruitfulness, there are cases on record which afford still greater evidence of the prolific properties of the grain-bearing plants. Of these several examples are to be found in the volume on "Vegetable Substances used for the Food of Man." We select the following quotation from Sir Kenelm Digby, who asserted, in 1660, that "there was in the possession of the fathers of the Christian doctrine, at Paris, a plant of barley which they at that time kept as a curiosity, and which consisted of 249 stalks, springing from one root or grain, and in which they counted above 18,000 grains or seeds of barley."

In the same volume there is another well-authenticated fact relative to the power of increase residing in wheat. The result, however, was in this instance obtained by careful cultivation. As the plant tillered or sent up stalks, it was divided and subdivided, till at length the original root was multiplied into 500 plants, each of which produced more than forty ears. "The wheat, when separated from the straw, weighed forty-seven pounds and seven ounces, and measured three

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pecks and three quarters, the estimated number of grains being 576,840."

The seeds of many kinds of vegetables are so numerous that, if the whole produce of a single plant were put into the earth, and again this second produce were made to yield a harvest, and so on, in a very few years the entire surface of the earth would be too limited for the sowing of the seed thus abundantly supplied. The hyoscyamus, or henbane, which, of all known plants, produces the greatest number of seeds, would for this purpose require no more than four years. According to some experiments the hyoscyamus produces more than 50,000 seeds; but assuming the number to be only 10,000, the seeds would amount, at the fourth crop, to 10,000,000,000,000,000, and as the quantity of solid land on the surface of the globe is calculated to be about 1,400,350,599,014,400 square feet, it follows that each square foot must contain seven plants, and therefore the whole earth would be insufficient to contain the produce of a single hyoscyamus at the end of the fourth year.

BIOGRAPHICAL DEPARTMENT.

JOHN LOCKE.

The author of the *Essay on the human understanding* was unquestionably one of the deepest thinkers and most profound reasoners that ever lived: his writings did as much to extend our knowledge of the world of mind, as

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those of Newton did for that of the material universe; and besides the general gratitude to which his labours, as a philosopher, entitle him, he has special claims to the consideration of Americans, as a sufferer in the cause of liberty, and the advocate of those constitutional principles which justify our revolution. He was, moreover, employed by the Chancellor of the exchequer in drawing up the fundamental constitution of Carolina, and was befriended by William Guen; when in consequence of being accused of the authorship of certain tracts against the government, he was arbitrarily ejected from his studentship of Christ, church by the King's command. Locke was born at Wrington in Somersetshire on the 29th of August 1632. His father was a captain in the service of parliament during the civil war. At a proper age young Locke was sent to Westminster school and in 1651 was elected to Christ Church College, Oxford. After a course of study in which he distinguished himself by his great application, and proficiency, he took the degree of Master of Arts in 1658, and then applied himself to the study of Physic. In 1666 he was introduced, in his medical capacity to Lord Ashley, afterwards the celebrated Earl of Shaftesbury, who formed so high an opinion of his general powers that he prevailed upon him to take up his residence in his house, and urged him to apply his studies to politics and philosophy. In 1670 he began to form the plan of his Essay on the human understanding, and about the same time he was made a fellow of the Royal Society. While Lord Shaftesbury was in power, he was employed in various public capacities and when that nobleman was obliged to retire to Holland, he accompanied him in his exile. After the death of his patron, aware that his liberal principles had rendered him odious to the predominant faction at home, he chose to remain abroad, which he did until the revolution, when he returned to England in the fleet which conveyed the princess of Orange; and being deemed a sufferer for the principles on which the revolution was established, he was presented with a public employment. During his absence in Holland he had

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written his first Letter concerning Toleration, and soon after his return to England he was gratified by the establishment of toleration by law. In 1690 he published his celebrated Essay concerning the human understanding, which he had also written in Holland, and which soon extended his reputation throughout Europe. This great work, which he was nineteen years in preparing, owes its existence to a dispute at which he was present, and which he perceived to rest entirely on a verbal misunderstanding; and conceiving this to be a common source of error, he was led to investigate the subject of the origin of our ideas &c. In the result of his investigations he gave the first example in the English language of a treatise on an abstract subject, written with simplicity and perspicuity. No author has more successfully pointed out the danger of ambiguous words, and of having indistinct notions on the subject of judgment and reasoning; while his observations on the various powers of the human understanding, on the use and abuse of words, and on the extent and limits of human knowledge, are drawn from an attentive reflection on the operations of his own mind.

In order to study the human soul, he went neither to ancient nor to modern philosophers for advice, but he turned within himself, and after having long contemplated his own mind, he gave his reflections to the world. The effect which his writings have had upon the opinions and over the fortunes of mankind constitutes the best eulogium on his mental superiority.

In 1690 Locke published his second Letter on Toleration, and in the same year appeared his two Treatises on Government, in opposition to the principles of the passive obedience school. In 1692 he published a third Letter on Toleration, and the following year his thoughts on Education. Next to his great work on the human understanding, unquestionably stand his two Treatises on Government, in which he exposes the weakness of the theorists of divine right and passive obedience; this was a favourite work with statesmen of the American Revolution, by whom it was constantly appealed to in their con-

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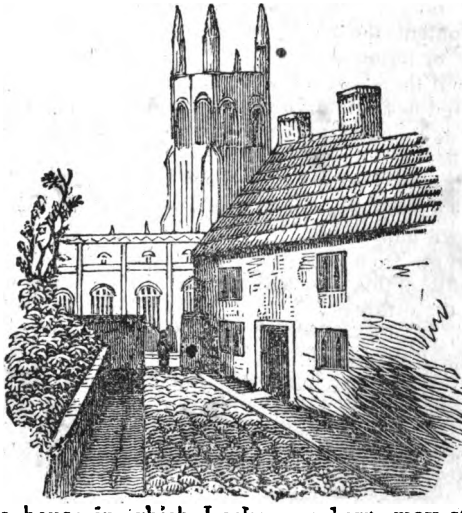
stitutional arguments. In 1695 he published his Reasonableness of Christianity as delivered in the Scriptures, which from its supposed leaning to Socinianism involved him in various controversies; these, however, were distinguished by remarkable mildness and urbanity. An asthmatic complaint, to which he had long been subject, now increased so much in violence, that Locke retired from the prefer, and also resigned his public employment, observing that he could not in conscience hold a situation to which a considerable salary was attached, without performing the duties of it. From this time he lived wholly in retirement, where he applied himself to the study of the Scriptures.

Locke continued nearly two years in a declining state, and at length expired in a manner corresponding with his piety, equanimity and rectitude of life, on the 28th of October, 1704. He was buried at Oater, where there is a neat monument erected to his memory, with a modest latin inscription, indited by himself.



The house in which Locke was born, may still be

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seen adjoining the churchyard of Wrington; it is now divided into two tenements, one of which is inhabited by the sexton of the parish. Under the same roof, although in a separate part, is the Girl's National School.

The house is in a ruinous condition, but such is the reverence manifested for this great man, that it is kept in as diligent repair as is consistent with the preservation of the sameness of the building. The entry of Locke's baptism stile remains in the Parish Register of Wrington. It is as follows:—

Anno Dñi. 1637,
Julie, 16. John the Sonne of Jeremy Locke, and Elizabeth his wife.

THUS I THINK.

From Locke's Miscellaneous papers, published in his life by Lord King.

It is a man's proper business to seek happiness and avoid misery. Happiness consists in what delights and contents the mind; misery in what disturbs, discomposes, or torments it.

I will therefore make it my business to seek satisfaction and delight, and avoid uneasiness and disquiet; to have as much of the one and as little of the other as may be.

But here I must have a care I mistake not; for if I prefer a *short* pleasure to a *lasting* one, it is plain I cross my own happiness.

Let me then see wherein consists the most lasting pleasure of this life, and that, as far as I can observe, is in these things:

1st. Health,—without which no sensual* pleasure can have any relish.

2d. Reputation,—for *that* I find every body is pleased with, and the want of it is a constant torment.

3d. Knowledge,—for the little knowledge I have, I find I would not sell at any rate, nor part with for any other pleasure.

* As opposed to intellectual.

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4th. Doing good,—for I find the well-cooked meat I eat to-day does now no more delight me, nay, I am diseased after a full meal; the perfumes I smelt yesterday now no more affect me with any pleasure: but the *good-turn* I did yesterday, a year, seven years since, continues *still* to please and delight me as often as I reflect on it.

5th. The expectation of eternal and incomprehensible happiness in another world is that also which carries a constant pleasure with it.

If, then, I will faithfully pursue that happiness I propose to myself, whatever pleasure offers itself to me, I must carefully look that it cross not any of those five great and constant pleasures above mentioned. For example, the fruit I see tempts me with the taste of it that I love; but if it endanger my health, I part with a constant and lasting for a very short and transient pleasure, and so foolishly make myself unhappy, and am not true to my own interest.

Innocent diversions delight me: if I make use of them to refresh myself after study and business, they preserve my health, restore the vigour of my mind, and increase my pleasure; but if I spend all or the greater part of my time in them, they hinder my improvement in knowledge and useful arts, they blast my credit, and give me up to the uneasy state of shame, ignorance and contempt, in which I cannot but be very unhappy. Drinking, gaming, and vicious delights will do me this mischief, not only by wasting my time, but by a positive injury endanger my health, impair my parts, imprint ill habits, lessen my esteem, and leave a constant lasting torment on my conscience; therefore all vicious and unlawful pleasure I will always avoid, because such a mastery of my passions will afford me a constant pleasure greater than any such enjoyments, and also deliver me from the certain evil of several kinds, that by indulging myself in a present temptation I shall certainly afterwards suffer.

All innocent diversions and delights, as far as they will contribute to my health, and consist with my im-

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provement, condition, and my other more solid pleasures of knowledge and reputation, I will enjoy, but no farther; and this I will carefully watch and examine, that I may not be deceived by the flattery of a present pleasure to lose a greater.

HENRY JENKINS ÆT. 169.

HENRY JENKINS, of the parish of Bolton, in Yorkshire, being produced as a witness, at the assizes there to prove a right of way over a man's ground, he swore to nearly 150 years memory; for at that time, he said, he well remembered a way over the ground. And being cautioned by the judge to beware what he swore, because there were two men in court of above 80 years of age each, who had sworn they remembered no such way, he replied, "That those men were boys to him." Upon which the judge asked the men how old they took Jenkins to be? who answered, they knew him very well, but not his age, and that he was a very old man when they were boys. Dr. Tancred Robinson, fellow of the college of Physicians, adds further, concerning this Henry

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Jenkins, that upon his coming into his sister's kitchen to beg alms, he asked him how old he was? who after a little pausing, said, he was about a hundred and sixty-two or three. The Doctor asked him what kings he remembered? he said, Henry VIII. What public event he could longest remember? He said, the fight of Flodden-field. Whether the king was there? He said no, he was in France, and the Earl of Surry was general. How old he was then? He said about twelve years old. The Doctor looked into an old chronicle that was in the house, and found that the battle of Flodden-field was 152 years before: that the earl he named was general, and that Henry VIII. was at Tournay. Jenkins was a poor man, and could neither read nor write. There were also four or five in the same parish, reputed to be 100 years old, or near it, who all said he was an elderly man ever since they knew him. This remarkable man died on the 8th of December, 1670, at Ellerton-upon-swale, at the amazing age of 169 years.

What a multitude of events, says an ingenious author, have crowded into the period of this man's life! He was born when the Roman Catholic religion was established by law; he saw the supremacy of the Pope overturned; the dissolution of the monasteries; popery established again; and at last, the Protestant religion securely fixed on a rock of adamant. In his time the *Invincible Armada* was destroyed; the republic of Holland formed; three queens beheaded, Anne Boleyn, Catharine Howard, and Mary Queen of Scots: a king of Spain seated upon the throne of England; a king of Scotland crowned king of England at Westminster, and his son beheaded before his own palace, his family being proscribed as traitors; and, last of all, the great fire in London, which happened in 1666, toward the close of his wonderful life.

He was buried in Bolton church-yard, near Catterick and Richmond, in Yorkshire, where a small pillar was erected to his memory, on which is the following epitaph composed by Dr. Thomas Chapman, Master of Magdalen College, Cambridge, from 1746 to 1760;

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Blush not, marble,
To rescue from oblivion
the memory of HENRY JENKINS:
a person obscure in birth,
but of a life truly memorable:
for
he was enriched with the goods of Nature,
if not of Fortune:
and happy in the duration,
if not the variety of his enjoyments:
and though the partial world despised and
disregarded his low and humble state,
the equal eye of Providence beheld
and blessed it
with a Patriarch's health
and length of days;—
to teach mistaken man
those blessings are entailed on
temperance,
a life of labour, and a mind at ease.
He lived to the amazing age of 169.

TOPOGRAPHICAL SKETCHES.

RUINS OF THE THEATRE AT TAORMINA WITH A DISTANT VIEW OF MOUNT ETNA.

THE Island of Sicily abounds with ruins of ancient edifices, some of which are the most picturesque in the world. We have selected a view of those of a theatre at Taormina, beautifully situated on the side of a high mountain, and commanding a fine view of the sea. It is almost too disparaging to call them ruins, considering the remarkable preservation of a great part of the structure. There are five distinct platforms of seats, attached to which are convenient galleries ingeniously planned; and, above the whole, two apartments which are supposed to have been places of storage for the tropœa and moveable decorations of the stage. The theatre being constructed on the sloping side of the mountain, the seats are all cut from the original rock. All along the front of one of the rows, there are inscriptions on every compartment, in large Greek characters. They were so well chiselled that some of them have completely resisted the tooth of time. It is presumed that they designate the persons to whom the seats were especially appropriated

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RUINS AT TACLMINA.

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The theatre is capable of containing from twelve to fourteen thousand spectators. Its position is most eligible. From the seats, and particularly the upper platform, a noble view is obtained of the sea, harbour, city, and adjacent country. When Syracuse was in its glory, the prospect must have been inexpressibly magnificent.

It is not owing to any modern attention that this theatre continues in any kind of preservation. It appears to be sadly neglected and even abused. Not far from the Theatre there is another very interesting remnant of antiquity, a Roman amphitheatre. They are both monuments of the taste and genius of two distinct people; the one of the polished and civilized founders, the other of the brave but rude conquerors of the country. The first was the scene of action of the regular drama; the second was designed for the show of brutal and sanguinary sports. In the theatre, the thrilling tragedies of Sophocles and Euripides, the pungent satires of Aristophanes, and the graceful comedies of Menander were intended to be exhibited. In the Amphitheatre, gladitorial combats, fights of men with men, of men with beasts, and beasts with one another, were waged for the barbarous gratification of the Roman—the half civilized Roman: for the same ferocious amusements, which were cultivated in the untutored times of the commonwealth, were sought with avidity, by the people, in the best days of the empire. The darkness of some of the dens of the Amphitheatre is absolutely fearful. It seems as though the glare of the lion's eyeballs might still illumine the horrid gloom, or his growl be heard muttering vengeance on the unbidden intruder. But the lion has resigned his den, and the other shaggy monsters of the wood their several prisons, to a swarm of harmless lizards. The Arena which formerly was stained with human gore, when the fated victims fought with beasts "after the manner of men at Ephesus," is now applied to the purposes of husbandry, and peacefully waves with a crop of flax. And the Corridor, along which the multitudes have rushed with thundering tread in their eagerness to fill the seats of the mighty amphitheatre, is at present made use of

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by the neighbouring herdsmen, as a place of shelter for their flocks during the inclemencies of the weather.

FRIENDSHIP.

"When fortune smiles, and life is prosperous and fair, then it is that the nominal and true friend may *seem* alike sincere." Then it is that small and great, rich and poor, bond and free, bow at your shrine, and prostrate themselves as it were at your feet. But when unfortunately the dark clouds of sorrow and disappointment gather thick around you, and you find yourself beset with troubles, losses, crosses, and disappointments on every side; then you are ready to exclaim, fortune can create friends, but adversity alone can try them. Your friends of fortune will then desert you. They will laugh at your misfortunes, and heap upon you shame and disgrace. They will sink you, if possible, lower and lower in point of honour and reputation, and in all your attempts to rise, cross and blight you at every turn. But not so with the true friend. Though all your earthly prospects are cut off, he will not desert you, but if possible administer to your relief. Let us therefore, cultivate and cherish that friendship, and that alone, which will not diminish, though sorrows oppress and afflictions invade us; that too which will cheer and animate us amid our darkest hours, and shine brightest in affliction's night.

Truth and reason never cause revolutions on the earth; they are the fruit of experience, which can only be exercised when the passions are at rest; they excite not in the heart those furious emotions which shake empires to their base. Truth can only be discovered by peaceful minds: it is only adopted by kindred spirits. If it change the opinions of men, it is only by insensible gradations—a gentle and easy descent conducting them to reason. The revolutions caused by the progress of truth are always beneficial to society, and are only burdensome to those who deceive and oppress it. *Marsais.*

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WHO IS ALONE?

How heavily the path of life
  Is trod by him who walks alone;
Who hears not, on his dreary way,
  Affection's sweet and cheering tone.
Alone, although his heart should bound
  With love to all things great and fair,
They love not him: there is not one
  His sorrow or his joy to share.

The ancient stars look coldly down
  On man the creature of a day;
They lived before him, and live on
  Till his remembrance pass away.
The mountain lifts its hoary head,
  Nor to his homage deigns reply;
The stormy billows bear him forth,
  Regardless which—to live or die.

The flow'ret blooms unseen by him,
  Unmindful of his warmest praise;
And if it fades, seeks not his hand
  Its drooping loveliness to raise.
The brute creation own his power,
  And grateful serve him, though in fear;
Yet cannot sympathise with man,
  For if he weeps, they shed no tear.

Alone, though in the busy town,
  Where hundreds hurry to and fro,
If there is none who for his sake
  A selfish pleasure would forego;
And oh! how lonely, among those
  Who have not skill to read his heart,
When first he learns how summer friends
  At sight of wintry storms depart.

My Saviour! and didst thou too feel
  How sad it is to be alone,
Deserted in the adverse hour
  By those who most thy love had known?
The gloomy path, though distant still,
  Was ever present to thy view;
Oh! how couldst thou, foreseeing it,
  For us that painful course pursue.

Forsaken by thy nearest friends,
  Surrounded by malicious foes;
No kindly voice encouraged thee,
  When the loud shout of scorn arose.
Yet there was calm within thy soul,
  Nor Stoic pride that calmness kept,
Nor Godhead, unapproached by wo;
  Like man thou hadst both lov'd and wept.

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